EDUCATION

Devoted to the Science, Art, Philosophy and Literature of Education

VOL. XXXII. OCTOBER, 1911 No. 2

Constants and Variables in the High School Programme of Studies

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THE central feature in the organism of the high school is the programme of studies. It is here that the chief elements of the school as an environment to be manipulated by the instructional corps in the secondary processes of learning are to be found. It is but logical, therefore, that in our efforts to perfect this organization into a harmonious relation to educational aims we should return again and again to a discussion of various aspects of the problems involved.

One of these problems is becoming very insistent at the present time, viz., that of the elimination and substitution of materials as opposed to mere addition and consequent congestion of the programme. It seems evident that such a situation calls for a much closer analysis of the separate activities proposed to be set up as a part of the school environment of youth. This is needed in order that we may the more clearly estimate values so that in any process of elimination we shall not make the mistake of throwing away majors in order to retain or substitute minors.

How are we to test such assertions, for instance, as that some subjects of the programme are relatively obsolescent and that their displacement does not, therefore, necessarily mean that any essential experiences are to be eliminated from the scholastic regimen of youth? One particular phase of the problem presented by this question is: What elements of the programme as now constituted are by nature constants in their relation to the educative process, and what are variables? This question necessarily requires con-

sideration, (a) with reference to individual needs, (b) with reference to special community needs, and (c) with reference to the needs of society as a whole. It is the purpose of this discussion to deal somewhat briefly with this particular aspect of the problem of values as related to the determination of the high school programme of studies.

First of all we must agree as to the general aim of education so as to be able to determine, with some degree of clearness, the necessary concomitants of its accomplishment. Happily recent writers on educational principles have furnished us with well formulated definitions which we may use somewhat freely here, and without any detailed discussion. For instance Bagley* would say that education is "the process by means of which the individual acquires experience that will function in rendering more efficient his future action." If we turn to Ruediger† we find him saying that "To educate a person means to adjust him to those elements of his environment that are of concern in modern life, and to develop, organize, and train his powers so that he may make efficient and proper use of them."

For our purpose here we may accept either of these definitions. We need but to remember that we are dealing only with that phase school. To state the aim of education, then, with reference to this fact we may say that it is a process established by society for promoting and perfecting the individual's adjustment to his natural and social environment in such a way as to aid in insuring the most effective living. This is to be done, so far as the school is concerned, chiefly by imparting to him a knowledge of natural and social sciences and directing him in the development of ability to apply their more fundamental principles to the solution of new problems to be solved and new adjustments to be made.

Incidentally the individual will require certain training in language, in mathemetics, and in drawing and construction in order that he may be able both to record and to interpret his own and others' observations. So far as the secondary stage of his training is concerned the development of these academic subjects need only be commensurate with their necessary applications in this stage. In practically all cases English will be the language needed and

*The Educative Process, p. 22.
†The Principles of Education, p. 39.

constantly applied. To a certain extent a reading knowledge of Latin would facilitate his comprehension of the life and customs of the Romans and their legacy to modern life. So, also, a reading knowledge of German or French, if rightly applied would aid materially in getting into sympathy with the ideals, institutions and industries of these great contemporaries among nations. This would involve a progress in the work of the high school hardly to be thought of with our present wasteful treatment of the years given to elementary training.

Something of Algebra and much of Geometry will be applied when once the motor and constructive lines of educational activity in the high schools are fully provided for and properly correlated to the academic work. As things now are they have but little application outside of a few points in the teaching of the elementary sciences. Drawing and art work, together with construction, will be much in demand in the fully organized school. They are but slightly accessory in the present stage of development except in certain special types of industrial and trade schools.

As far as the discipline of the high school itself is concerned then, within its own possibilities of application, English is the only art that is constant. The foreign languages and mathematics are offered almost solely as a means of mental discipline against future needs or as a preparation for future training in college or university. The drawing and art work and construction are taken chiefly on their cultural value, and where not definitely related to industrial activities can hardly be classed as constants unless we can find some justification for them on the ground that they lead to a broader sympathy in one's social relations and thus justify themselves as a charge upon society. This probably explains the fact that some localities have considered them "fads", and have insisted on their removal from the school programme.

With this preliminary discussion of the school arts as they appear in the high school as a minor element in the programme of studies we may now proceed with our classification of constants and variables according to the scheme above indicated. The school, we have said, is instituted by society at her own expense, and primarily for society's benefit. First of all, and most generally, then, those things will be constants in the school which society agrees upon as fundamentally essential to that safe-guarding of

her interests for which schools are organized and maintained. These again will be determined by what a given social group is, what conditions and institutions its leaders in thought consider essential to its integrity and perpetuity.

There is, indeed, a sense in which the ideals of a race should determine certain constant elements in the education of the young of that race. It is quite readily conceivable that each race has its own peculiar ideals, institutions, systems of thought, which it is bound to preserve. For may we not assume that ultimately all these are to be required in order fully to work out the essentials of world-life and the possibilities of the world as a whole? If this is the correct view then it becomes, in a sense, the duty of each race of people to preserve its own typical ideals through education. To do this will evidently require the teaching of certain constants so far as a given race is concerned.

In the case of the smaller social group, then, based upon some peculiar feature of its political organization, there will need to be added to the race-constants those things which are essential to the perpetuation, from generation to generation, of the particular type of ideals and institutions which belong with the given political or social order which the group represents.

Among those ideals and institutions which are of the Anglo Saxon race may be mentioned monogamous marriage and the sacred character of the marriage bond; the idea of the family as the social unit; the general idea of democracy.

In the case of our own social group democracy takes the form of a representative government. It involves, also, such institutional ideals as trial by one's peers, equality before the law, and religious freedom of the individual.

The general idea of democracy, when applied to industrial pursuits, carries with it the idea of division of labor in order that each may contribute his part to the common store. The particular idea of equality before the law makes the establishment of classes or castes inconsistent with our political and social ideals as a type of democracy. It should follow, then, that whatever is necessary to all the people in a general way, such as the arts above referred to, should become constants in the training of youth. Also that such skill and knowledge as may apply to the successful pursuit of all industries in general should be imparted to all alike.

We have long attributed to the individual in our democracy sovereign power; but we have been a little slow in realizing just what degree of intelligence the exercise of such sovereign power involves in order to insure the perpetuity of good government in a democracy where all are declared to be equal before the law, and where government is "of the people, for the people, by the people."

From what has thus far been said we may assume the following constants:

The ability to use and to read, readily and accurately, the language of the social group; ability to express ideas of quantity, including space relations, with reference to all the common phenomena of life; enough of history to understand our laws, our essential institutions, and our race and national ideals; a knowledge of geography sufficient to understand the character, extent and resources of our territory and our most important relations to other parts of the earth; enough of natural laws and forces as manifested in matter and in life to enable us successfully to adjust ourselves to them in all matters directly affecting our lives. Whatever other things not mentioned above that may be needed as accessories in developing sufficient knowledge along the lines mentioned should also be added to the list of constants necessary to the proper education of the youth of our race and nation. Just here we come to a close balancing between constants and variables. It has been suggested above, for instance, that Latin may become a valuable accessory in the interpretation of Roman history and its legacy to modern nations. If it should appear that the study of Roman history is an essential part of the history needed to make possible a sufficiently clear understanding of our laws, our institutions, and our ideals, we see how closely the inclusion or exclusion of Latin would affect a recognized constant as an accessory subject. In like manner we may readily see relations existing between what we have given as constants and such subjects as modern language, mathematics, drawing and art work and manual training.

What, then, shall we class as variables? First of all, if among the arts it shall appear that only certain individuals are capable of training to their efficient practice, evidently these arts should be classed as variables. For instance, all may learn a little drawing, but only a few can become artists; all may acquire ordinary

facility in the use of language, but not all can become orators or writers of literary merit; music may be known to all in a general way, but only a few may become skilled as vocalists or instrumentalists.

Second, if there is anything which may be considered as a mere personal accomplishment other than the arts above mentioned this may also be considered as a variable. To illustrate, one may become especially skilled in histrionic art, or in debate, or in the polite use of a foreign language, in dancing, or in fencing.

But by far the most important group of possible variables is to be found in such forms of training as are peculiarly essential to some trade, or profession, or particular business career. Herein is to be included all those elements of the high school programme that are distinctively of an industrial character. These are not less important as related to the preservation of our race or national ideals and institutions than are the constants of the programme; but their very importance depends upon their variable quality.

Just as there are variables essential to certain types of individuals so also may particular local conditions call for certain elements in the programme as constants which for the entire social group may be considered variables. Such difference may be due to climatic variations; city life as contrasted with country life; proximity to the sea as contrasted with inland regions; special industries strikingly characteristic of a given community.

Evidently in our past schemes of education we have been overlooking this very important group of subjects. This has been due chiefly to the fact that we have trusted to the homes and to the life out of school to supply these very necessary and fundamental factors in the education of our youth. But with the changes which have come in our social and industrial conditions, this may no longer be done with safety. The time has now come when we must consider with some dilligence just the place and the time to give to these variables, and how best to organize them along with the constants above enumerated.

As a preliminary to this consideration is it not time for us to cease trying to excuse the presence of any subjects in the curriculum on any other grounds than that of their necessity as essential factors among the consants and variables of the high school programme?

A Suggestive Outline for a One Year Course in Secondary Agriculture for Rural and Village High Schools

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PLANT STUDIES of matured plants, fruits, and seeds, Autumn—September and October, eight weeks. Begin with the study of the products of those plants most familiar to the pupils. From a study of the fruits and products proceed to the plants producing them. These studies may be approached from the economic point of view. There should be exercises in judging. Wheat, weeds, maize, trees, fruits, apples, etc., are among the few materials for study. An ideal of superior plants and fruits should be established in the mind of the pupil.

2. ANIMAL STUDIES.—Late fall and winter—November and December, six weeks. Begin with the animal products most familiar to the pupils and then proceed to the study of the animals themselves. Use the economic and applied science approach. Animal types should be studied and there should be exercises in stock judging. Milk, butter, wool, meat, eggs, and the animals producing these products are among the topics that should be considered under this head. The desirability of superior production of quality and quantity should be emphasized.

3. MACHINE STUDIES AND GENERAL FARM MANAGEMENT. (a) Machine Studies, Winter—December, two weeks. Begin with those machines most familiar to the pupils. Consider construction, the relation and functions of parts, etc. Make use of the motor propensities in the children. Emphasize the need of properly caring for machinery. Tear down and set up several farm machines. Study types and the reasons for the kind of work done.

(b) Farm Management. Winter—January, four weeks. Agriculture should not only teach the principles of the production

of economic materials, but also the principles by which these materials when produced may be conserved. General farm plans, rotation systems of crops, plots of orchards and gardens, fences, farm records and finances, and special farm problems are some of the topics that come under this head.

4. SOIL STUDIES. Late winter and early spring—February and March, eight weeks. Simple soil studies should first be made. Such things as the composition and types of soils, drainage, mulch, soil fertility, soil fertility tests, fertilizers, and the use and care of manures may be studied. The economic appeal to the pupil may here be made very strong, but the ideal of the conservation of soil fertility for future generations should not be missed.

5. STUDIES IN CONDITIONS OF PLANT GROWTH. Spring—April and May, eight weeks. Under this head are combined and applied many of the principles previously learned. The central feature here is the developing plant, and the relation that soils, moisture, temperature, light, fertility, and cultivation bear to it should be carefully studied. A greenhouse, a demonstration garden, and hotbeds and coldframes are quite essential for properly carrying out this phase of the work.

NOTES.—Half-year courses should only attempt one-half of the work here outlined. If the course in agriculture is given during the first half of the school year, it will be well to consider the first two divisions only; likewise, if the course is pursued during the last half-year the last two topics only should be considered.

An ideal course in secondary agriculture is made up of a set of laboratory exercises pedagogically arranged, around which all recitations, lectures, and readings center. The core of the course should bring the pupil into vital contact with the material objects and natural phenomena.

An Experiment in Free Tuition

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IN every state of the Union, a child receives his common school education without the payment of a cent of tuition,—unless, of course, he attends a school which is not legally bound to afford him instruction because he is a resident of another school district. The same is true of his high school course, except perhaps that he must pay for materials if he takes Manual Training, and for breakage if his work includes Physics or Chemistry. When he comes to the Normal School or the state University, however, he finds matters slightly different. He must pay a small matriculation fee; he will probably be asked to deposit a certain amount as a guarantee of good behaviour, which amount is likely never to come back to him if he breaks windows or demolishes furniture; and when he becomes a candidate for a degree he must pay a few dollars additional for a diploma. The aggregate of all these demands is very reasonable, it is true. The sum is very trifling compared to the tuition fee that a denominational school or a private college of the same grade of excellence as his state school would require; his contribution, indeed, pays only a small fraction of the cost of educating him; but the fact remains that education in these state institutions for higher learning is not absolutely free.

Except in Oklahoma. It is the boast of the authorities of the new state that it is possible for a student to take his degree in their schools without having paid the state a cent from kindergarten to graduation day. He is not even required to be a resident of Oklahoma; every school the state maintains is open to all comers on the same terms. For the straight courses this arrangement is a legacy from the territorial régime; but the state government has even distanced its predecessor in generosity by throwing certain special departments open on the same terms as the others.

It should be premised for the benefit of readers from the older

states where schools are severely catalogued and separated, that though the state of Oklahoma has a school called the State University at Norman, another called the University Preparatory School at Tonkawa, still another called the Agricultural and Mechanical College at Stillwater, and three more called Normal Schools, at Edmond, Alva and Weatherford respectively, beside several others in course of establishment, these institutions are all surprisingly similar in character. The state university maintains a preparatory department in its own buildings; the A. & M. College offers ambitious classical and literary courses; the Normal schools are fighting for the privilege of granting the A. B. degree and pay as much attention to the Fine Arts as to technical pedagogy. This statement implies no criticism; it is merely a record of a very easily-explained condition. Good high schools are still rare, and several counties in the northwestern part of the state have no high-grade institutions in reach to supplement their common school course except the Northwestern Normal School at Alva. Hence the Alva school very naturally makes an effort to satisfy the varied educational demands of a miscellaneous community, and consequently wanders far from the conventional idea of a Normal School. Much the same condition exists in the neighborhood of each of the other schools.*

All of the institutions mentioned have for several years maintained large and thriving music departments. The honest plainsman who can barely write his name and is innocent of orthography and syntax is generally very much more anxious to become a violin virtuoso or an opera-singer than he is to acquire the prosaic accomplishments mentioned; and the Music departments throve even when a fee was charged for lessons. But the new arrangement put in force this year, by which private instruction in voice, piano, violin and a number of other instruments is given absolutely free, the school in a good many cases furnishing practice pianos and other instruments also without charge, is a unique experiment whose results are extremely interesting.

The Southwestern Normal School has a Faculty of about thirty, of whom five are teachers in the Music department,—and another piano teacher, who will probably assist in the vocal teaching, to

*In what follows I shall speak more particularly of conditions in the so-called Southwestern Normal School at Weatherford, with which I am more familiar than with the "modus operandi" of the other schools.

be added next year. Of these five teachers, the vocal teacher is Head of the department, a second gentleman teaches stringed instruments, and three ladies do the work in piano. Every one of these five persons teaches six days in the week and has every period full. There is a long waiting list, and the number of private pupils in the department could probably be almost doubled if there were teachers to accommodate them. The music Faculty is a very capable one,—above the average of the other departments, on the whole,—and the policy of the authorities is evidently to continue encouraging this branch of the work.

The head of the department in this particular school is enthusiastically in favor of continuing the new arrangement. His colleagues in the other schools are not all so enthusiastic. It is evident at first glance that the position requires exquisite tact and great firmness, as well as an immense amount of hard work. Each teacher is expected to give lessons for a fixed number of periods each day, which number, it may be interesting to remark, is far in excess of the average number of classes taught by the members of other departments,—and when all periods are filled, the unfortunates who have applied too late are placed on the waiting list in the order of the filing of their applications. The arrangement makes the teacher, and especially the Head of the department, very independent. Certain conditions are announced which the pupil must live up to or be dropped. There is no appeal to the governing authority of the school. If Mr. So-and-So misses his lesson a certain number of times without a satisfactory reason, if his conduct is not irreproachable, or even if with the best of intentions he shows himself hopelessly incompetent, there are a dozen ready to take his place, and he is dropped.

The music teachers of this institution report that the work done under the new arrangement is decidedly better than under the old pay system. The fear of losing his place seems to be keeping the pupil at his work more carefully than did the desire to get the worth of his money. The iron hand of the department head is applying the principle of the survival of the fittest so rigidly that incompetents drop off early and seek more accomodating departments. The music work has increased in poularity as the year has gone on; there is more and better material for the leading parts

in the large musical organizations, chorus, glee club, orchestra, etc.; and free music seems to have come to stay.

There are numerous details of the arrangement which are not yet settled to the satisfaction of everyone concerned. Until this year there was an attempt to keep the Normal School phase uppermost by requiring that every private pupil of the music department must enroll for three regular subjects in addition. At present no effort is made to enforce this regulation; residents of the town enroll for two periods a week of gratuitous private instruction in voice or piano, and never come near the school at any other time. This liberality has of course aroused bitter criticism among regular students who have been unable to avail themselves of the privilege; and it does seem a little incongruous that an institution calling itself a training school for teachers should pay one-fifth of its faculty for devoting the most of their time to teaching subjects that have scarcely the remotest connection with public school teaching. On the other hand, it is argued that consistency can well be disregarded when it is possible to extend the school's usefulness to larger numbers.

The drawing and expression departments of the Normal schools have always been on the same basis as the Academic courses. There has been no private instruction except in connection with oratorical and declamatory contests, and there has never been a fee of any sort.

Accuracy in Arithmetic

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THOUGH accuracy in arithmetic is a special topic in a single branch of study, it should have considerable interest for the general students of education. The habit of exactness and accuracy, it has been claimed on good grounds, can be and is carried over from arithmetic into other studies. Whether or not this is true, it doubtless is true that arithmetic is the best place to make a study of accuracy.

The last year or so has seen a tendency to cut out some of the fads in education, and to return to a more careful study of the three R's in the hope that good will result from a renewal of interest in and a more careful examination of these branches. Probably the greatest opening for improvement in the teaching of arithmetic lies in a study of this topic of accuracy.

Writers on arithmetic often talk very glibly of accuracy and speed, and usually specify how they can be acquired. What they think is, as a rule, vague, and what they say is only partly true. Complete or even approximately complete accuracy is unattainable wherever the human element enters, except by special artifices, as double-entry bookkeeping, or twice or thrice repeated proofreading by different persons.

A degree of accuracy, not accuracy itself, can be attained by persistent practice. This accuracy or degree of accuracy can be *lost* as well as gained. Accuracy depends on the time of day, on the physical condition of the computer, on the amount of interruptions or disturbing elements, on the complexity of the act performed, on the special mental qualities or acquirements of the computer, and on numerous other things. Some persons can hold in mind fairly reliably all the elements in a five-fold complexity, others only those in a four-fold complexity, others still only those in a three-fold complexity, and so on. Whenever problems or operations become complex, the latter become very inaccurate, while with simpler

problems they continue accurate. Some persons in copying can remember a number of four figures, some of six, some of eight. As the complexity increases, the inaccuracy also increases rapidly. Similarly a stenographer may be accurate on ordinary business correspondence, but quite inaccurate on less familiar words; or a piano player may be fairly skilful on simple music, but very inefficient on difficult pieces. Precisely the same thing is true in arithmetic. Pupils often get fairly reliable results in simple interest, but can not be depended on at all in partial payments.

It is a fact that the business world is filled to a large extent with contempt for the degree of accuracy attained in nearly all of our schools. This judgment is probably strongly in the right, and at the same time it does the scholars an injustice since they are not really to blame. The business man performing the same operation or class of operations day after day and month after month becomes very expert indeed in the work. The child in school performs a much greater variety of operations, some of them not very often, has no means of testing his results, and, as a consequence, is far less accurate. But extremely often the child is heinously inaccurate, and, of course, there is no justification for this. The standard up to which the business world has a right to expect the school youth to come is a good degree of accuracy, though not much speed at first. Rightly taught the scholars will be able to meet this requirement nine times out of ten. The writer's observation and reading lead him to think in our schools attention is not uniformly given to verifying answers. Pupils think if their reasoning satisfies them and the answer appears to be correct, it is enough. In actual life where a computer has to be right, he does not stop with *thinking* his result is all right; he must find out in some way whether it is correct or is not correct. The pupil in school should acquire the same habit, and he will acquire it only by the right kind of teaching. In Professor D. E. Smith's excellent pamphlet* entitled THE TEACHING OF ARITHMETIC, (which by the way, ought to be in the hands of every teacher of arithmetic in the country,) he says: "It can not be too much impressed on teachers and pupils that both are very liable to errors in all kinds of calculation, and that they, like business computers, should always apply some kind of check to

*Jan., '09 number of Teachers' College Record, Columbia University.

every result obtained. Some teachers feel that the work should be so accurately done that checks should be unnecessary. This is a good theory. But practically it will not work with the ones who advocate it. No good practical computer would think of leaving his results without checking; and if a professional will not do this, why should we expect a child to be so infallible as to do it". College students, having gotten out of the habit of making numerical calculations, are notoriously inaccurate. They know perfectly well how to perform all the operations required, but their blunders, both in number and kind, are almost past belief. With considerable drill they become passable computers, but no business house, would care to risk its calculations in their hands without some system for checking their results. If, then, college students are inaccurate, it is to be expected that pupils in the lower grades will also be found imperfect, and their calculations will need to be checked.

One source of error in arithmetic has to be met by drill, viz., copying. Perhaps thirty per cent. of all errors, taking all schools and all grades into account, are due to errors in copying. Now that correct copying is made one of the tests in civil service examinations, and because of its importance, it would seem desirable to have a place in school work for special drill in correct copying.

Most writers do not distinguish clearly between "checks" and "proofs". A check is a test applied to an answer, which though correctly performed, does not necessarily determine that the answer is correct. Thus "casting out the nines" is a check, since if one figure of the answer is as much too large as another is too small, the answer "checks", though it is wrong. Similarly substituting figures for letters in an answer in literal arithmetic is only a check. By a "proof" is meant a test, which, if performed without error, shows that the answer is correct. Thus testing an answer in arithmetic or algebra by the conditions of the problem, when this is possible, is a proof. There are very many problems in arithmetic whose answers can be tested in this way.

All the simple fundamental operations, addition, subtraction, multiplication, and division, can be checked by casting out the nines. It is not necessary to explain the philosophy of the operation to the children in the grades. They enjoy making the tests and there is good training in addition and subtraction in perform-

ing this work. The writer favors checking addition by adding in the reverse direction, and also at first casting out the nines, and continuing this plan until the pupil becomes sufficiently accurate so that the one test is enough. In multiplication and division the work should first be gone over carefully, and then tested by casting out the nines. Square and cube root can be tested by casting out the nines as in division. In square and cube root and division, in some instances, it may be desirable to prove by multiplication.

Besides "checks" and "proofs", a third test may be distinguished and called the "duplicate solution" test. It is this to which particular attention is directed in this article. It consists in solving problems by two independent methods and comparing the answers. By this plan the use of an answer book is obviated entirely. In many cases the pupil can be as confident the answer he himself gets is the correct one as if he had the answer given by the author. Evidently proving work correct by going over it is a very unsatisfactory way, since there is always a strong tendency to repeat a mistake once made. It is always much safer to perform an operation in two entirely distinct ways.

One trouble with the use of an answer book is that many pupils, finding it difficult to solve problems, proceed in their extremity to juggle for the answer. This course having once been entered on is easy to follow. There is, however, no educational value in it, but positive harm. It would be difficult to judge how much there is of this sort of thing going on in American schools, but doubtless a very great deal,—even in good institutions. Any plan which tends to make pupils act rationally, and which gives them self-confidence is certainly worthy of examination. Lack of assurance in themselves on the part of children acts in the same way as loss of confidence in an army,—it leads to *demoralization,* and keeps persons from doing what they are abundantly able to do.

To show that problems can almost always be solved in two different ways, one solution to check the other, classes of such problems are given below. It is understood that the solution and check solution can interchange at any time.

Kind of Problem	Method of Solution	Method of Check Solution
Simple Addition	Adding up	Adding down
Simple Reasoning	Analysis	Proportion
Percentage	Analysis	Proportion
Complex Reasoning	Cause & Effect	Compound Proportion
Cost in Denom. Nos.	Cancellation	Aliquot Parts
Practical Measurements	Cancellation	Aliquot Parts
Interest and Discount	Cancellation	Aliquot Parts
Finding Time interval	Counting number of days in each mo. and adding	Compound subtraction with result corrected for excess and defect in certain months
Partial Payment Time interval	Compound subtraction for the several periods	Sum of periods equal to the whole interval
etc.	etc.	etc.

The types of problems just enumerated include a very large proportion of the practical problems in arithmetic. Most persons probably do not realize that so large a portion of the arithmetic dealing with the cost of articles and with practical measurements of all kinds can be solved by either the cancellation or aliquot parts methods, the one constituting an excellent check on the other. It is a curious fact that great numbers of all classes of those who leave school and forget how they solved the problems while studying arithmetic, themselves fall naturally into the way of using the aliquot parts method though they do not know their method by this name. It seems remarkable that the arithmetics do not present this subject in anything like the way it can be developed. A little is given on it usually in connection with a merchant's calculation of profits. It should be presented as a *general method,* applicable in the solution of all sorts of problems, whenever multiplication enters.* Most persons have the notion that the cancellation process is the quickest way to get an answer. As a result of long continued and careful observation it can be said that the aliquot parts method wisely used is shorter or fully as short as the other half of the time. Owing to the total dissimilarity of these methods, if the answer comes out the same by both, this fact alone constitutes a near proof of correctness.

As regards the setting of the proportion and unitary analysis methods over against each other, using one to check the other, it

*See an article by the writer in School Mathematics (now School Science and Mathematics, Chicago), for March, 1904 on General Methods of Solving Problems in Arithmetic. See also Sec. 1 in Chapter IX of the writer's Practical Elementary Algebra recently published.

may fairly be claimed that this course is a positive advance over the position which specializes on either the one or the other. Our grandfathers used proportions to solve their problems; our fathers used analysis. We have seen a movement sweep over the cauntry aiming to displace analysis again entirely by the ratio idea, making all countaing take the form of measurement. We have seen also the return to reason in the matter, through the recognition of the merits of both. Any one who has examined into the question knows that perhaps half of the time the ratio method has advantages over the other, and the other half of the time the reverse is true. Also, why then should not both be applied to the same problems simultaneously, after both are learned?

One objection to the proportion method of solving problems relates to the language of proportion, "is to" and "as" having no meaning in themselves. The other objection is that the colon notation is far from being as familiar as the fractional. Now in problems the essence of a proportion solution is attained by merely multiplying the number which corresponds to the answer by the ratio, in its lowest terms, of the other two given numbers. This ratio is a proper fraction if the answer is to be less than the number it corresponds to, and an improper fraction if it is to be greater. With this change in the form of solution, proportion is as simple and natural as analysis. Indeed the form of solution just described is precisely the one a business man, left to himself will adopt. Moreover this form of solution can be extended with great east to any compound proportion problem.* The method of solution just described while far from being in general use, is not novel, since it can be found in some arithmetics.

In some cases an algebraic solution can be used to check either the proportion or analysis solutions.

Just a word or two may be said now about speed. Evidently so long as any calculator has to be fearful about his accuracy, that long he will try to secure it by slowing up on the speed and taking extra care. If, however, the accuracy is provided for by one artifice or another, as, for instance, by a duplicate solution, the mind can be free to get up all the speed attainable. Within limits, the greater the speed the less the chance for errors. Evidently when a duplicate solution is depended on for accuracy, it will not be

*It may be stated here that while the staple forms of compound proportion problems are not very practical, real practical problems which may be solved by this method, can and do very frequently arise.

necessary to go over any work twice, so long as the two answers found agree, since the chance of error has become very slight. Evidently, also, to get a duplicate solution, secured under the conditions described, will take no longer, as if as long, as to work a problem through carefully, and then go over it to discover any error remaining.

It probably will be said as an objection to the duplicate solution idea that business men do not follow this plan. In answer it can be said that business men for ordinary simple problems do not need to do this to secure the requisite accuracy. For short problems, like finding the interest on any sum at 6 per cent for 68 days, or at 5 per cent. for 76 days, it is better to use one method—a combination of cancellation and aliquot parts. But for a partial payments problem, say, the writer is satisfied the business man himself will do well to solve each section of such problem in duplicate as he goes along, thus making sure he is right, unless he has interest tables at his hand. Of course the writer would expect common sense to be used in employing or not employing the duplicate solution. It seems to be an essential ingredient in securing the right doing of anything.

The question arises how may the ideas of this article be introduced into a course of study? It is clear if the plan proposed is to be carried out, the order of presentation of certain topics will likely have to be rearranged somewhat. Presumably analysis and proportion can be introduced, the one after the other, perhaps in the fifth grade and taught together thereafter. In the same way the cancellation and aliquot parts methods can be brought in, the latter after the former, beginning with simple problems in the sixth grade, and can be kept together thereafter. It must be understood that to use the aliquot parts method to the best advantage in all cases requires long experience. In many instances teachers as well as scholars will have to learn to use it.

Most cities have their courses of study made out in full detail. Would it not be wise for superintendents to consider the question of rearranging the topics in accordance with the suggestions of this article? Would it not be wise also for many teachers to enlist themselves in the task of a comprehensive study of this whole question of accuracy with the thought that many improvements over present plans and practises could be discovered and introduced.

Education in England and America

By C. H. Moore,

Principal of the New York Tutoring School.

THE American pedagogue has returned from his vacation trip to Europe. He has visited various educational institutions abroad and has compared notes and exchanged ideas with his professional colleagues in England and elsewhere, and now, if his visits are to be at all productive, he is making a casual analysis of his impressions with a view to utilizing that which may be profitable in his own endeavors. This, of course, is precisely as it should be. It would be well if opportunity for studying educational methods in various countries formed a part of every teacher's training. But, after all, the impressions one obtains from a flying visit to the schools of other lands, however valuable, cannot be compared to the actual experience of working for some time in institutions of different countries. It is from the latter view point that this article is written. A lengthy experience of English schools and some years' association with American educational effort impel me to attempt some comparisons of the conditions existing in the two countries.

The first consideration in connection with any educational system is, naturally, the public point of view; that is, the extent to which the people regard education as desirable, and the sacrifices they are prepared to make in order to secure it. In this connection it is at once recognized that both the American and the English people have realized that their "first line of national defence" lies in the intellectual equipment of the nation. Looking upon education as a national asset there is not the slightest doubt that the American pays considerable more for it than the Englishman. Whether he obtains a *quid pro quo* or otherwise is the question. The average cost per head for educating a child in the public schools of America is higher than in England but I venture to express the view that the English boy in the elementary school is far in advance of his American cousin. His work is characterized by

a thoroughness which here is conspicuously absent. The English elementary school, like the public schools of this country suffers from the periodical attack of the faddist. To play at "make believe" is characteristic of children. It is occasionally typical of their instructors.

In spite of this fact the most expert teaching force in England is to be found in the elementary schools. This condition is largely due to the method of training teachers. A year as a probationer, four years' apprenticeship as a Pupil teacher, with actual teaching experience under the direction of a qualified adult master or mistress, and efficient daily instruction at the Pupil Teachers' Centre; two years, at least, in a Training College, under Government supervision, and a year and a half or probably two years actual service in a school inspected by His Majesty's Inspector, constitute the "making" of a Certified Teacher. The examinations during this course of training are of such a nature as call for a high standard of attainment. The net result is the production of a highly trained qualified practitioner. Another fact of some importance is that whilst the army of women teachers in the elementary schools is constantly increasing the man plays a far more important part in the education of England's "masses" than is the case in this country. It is very much open to argument as to whether the placing of a large class of boys above the age of, say, ten years, under the charge of a woman teacher, is conducive to the best results. The concensus of English professional opinion is against such a course. It is remarkable that in recent years whilst authorities in America have put forth every effort to prohibit the use of corporal punishment in the public schools, it has been regarded as an enlightened step forward on the part of English local educational authorities to extend the power of administering corporal punishment to all fully certificated teachers on their staffs.

Strange as it may appear, this course has had the effect of considerably reducing the amount of corporal punishment inflicted, whilst the knowledge on the part of the pupil that the teacher legally possesses this power acts as a remarkable deterrent on the refractory child. I am aware that the question as to whether these conditions make for more efficient progress or otherwise will be challenged by many educators, but my experience has led me to the conclusion that the material which reaches the secondary school

teacher from the English elementary school is of a higher order than that which the American secondary school teacher receives from the public schools. This is a matter of extreme importance. The educational enthusiast looks longingly forward to the establishment of a national system of education which shall be so organized that perfect co-ordination exists throughout; so arranged that each type of school shall grow organically out of the type preceding it; until an unbroken chain shall exist, connecting the kindergarten with the university. Consequently the necessity for thoroughness, for purposely systematised and efficiently directed instruction in the public schools, cannot be too strongly emphasized.

Coming now to a consideration of secondary schools a necessity for definition arises. A wide difference exists between the American and English fields of secondary education. In the urban localities of England there is usually to be found the "Higher Grade School." This is an institution somewhat midway between the American public school and the high school. It fulfils a useful mission as it affords opportunity for a more advanced elementary education than would otherwise be possible to those pupils whose school life cannot be prolonged. Of a still higher type are the grammar schools, many with ancient foundations, which carry on most efficient work of a truly secondary character. Add to these the numerous "prep" schools and we have the machinery for college and university preparation. The latter class of school, whilst numerous, does not obtain to anything like the extent that is found here. The day of the "private adventure" school as it flourishes in this country has largely gone by in England, and the Englishman's instinctive desire to have some authoritative supervision over a public or a semi-public institution makes impossible the existence of so-called "academies" and "colleges" of the type which yet abound with us. A careful investigation of the secondary schools of England reveals one phase which calls for attention. There is a sad lack of training evident about the secondary school teacher. It is not really essential that the teacher should be a model of erudition. Teaching is an art, and largely it is an intuitive art, and many are the instances of the scholarly teacher who cannot teach.

The American secondary school teacher is, as a rule, superior to

his English confrère. It is not difficult to ascertain why. The average American college student has characteristics peculiarly his own. The American instinct differs from that of the English. It is typical of America that many youths work their way through the colleges. Such instances are rare in England. The college student here will undertake tasks (to his credit be it recorded), that the English collegian would not attempt. The desire to teach others is far more evident among students here than in the old country. The net result is that the source of material from which secondary school teachers are drawn is wider and of a more efficient character. The oral recitation which finds such a prominent place in American schools is conspicuous by its absence in English schools. This naturally arises from the *personnel* of the faculties. Nothing is more ludicrous or more discouraging than the oral recitation with an inefficient instructor.

There is something to be said in favor of the English method of having one master teach all subjects. Departmental teaching in upper forms has, of course, much to recommend it, and it goes without saying that the teacher should not be regarded as an encyclopedia. But departmental teaching is not conducive to "tone." In the best of English preparatory schools that pleasing atmosphere of culture which is immediately noticeable is traceable to the influence of the class master and to what one may term the class environment. Much depends on the master. It seems a natural criticism to me to observe that in America too much depends on the boy. In spite of many shortcomings I think it may safely be asserted that the English boy of fifteen is more advanced than the American boy of similar age. This statement must be qualified somewhat. His superiority is confined to his purely scholastic attainments. He is not so independent as the American boy. He has had little, if any, manual training, but his general bearing and deportment are worthy of imitation. The monitorial system which is still prevalent, comes in for much American criticism, but it undoubtedly possesses advantages. It must always be remembered that this system, to be effective, can only be carried out under a carefully organized method of supervision. Again the position of the head boy is traditionally one of responsibility which must be recognized. Nothing inspires the schoolboy more than a

sense of responsibility, and when that responsibility is imposed on conditions of honor the plan is usually efficacious.

No comparison between the school methods under discussion would be complete without some reference to school sports. Here a wide difference is at once apparent, based on the varying national conception of what sport is. The American plays a game for the purpose of winning it. In the realm of sport American athletes are a community of specialists. On the other hand, the English aim at becoming all round sportsmen. The English boy plays a game for the game itself. He aspires to become a cricketer, to play football (not the American Rugby game, by the way), to ride, to shoot, to row, etc. One regrettable feature of American college life and also of many preparatory schools, is the undue prominence that is given to athletics. I have met more than one instance in which the athletic equipment of the school was the deciding factor in its selection, at least, as far as the boy was concerned. This is a distorted view. Outdoor sports have a proper and a valuable place in every well ordered curriculum but the true aim of the school should not be to produce a winning team but to cater for the physical development of all its students.

When all the comparisons enumerated in this brief article are analyzed it is obvious that mutual benefit must accrue from a proper consideration of the various methods in use in both countries.

Each, of course, must meet its own conditions. The long summer vacation in America constitutes a difficulty. The interruptions to the work are too frequent. In view of the increasing demands of the American colleges the student must work harder; or better still he must be brought to concentrate his energies on those things which are essential. His present existence is one of "hustle"; his social distractions obscure the true aim of his scholastic life; his "pace" is too rapid; he is too mature; in a word the American *boy* needs cultivation. If study of other national methods will aid to this consummation by all means let it prosper.

The High School Course in American Government

Louis I. Bredvold, Superintendent of Schools,

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PERHAPS no department of teaching in our secondary schools is in such need of resuscitation as the course called "Civics", and none has been more generally neglected. The customary attitude toward the subject is neither intelligent nor enthusiastic. When the requirements of the course are discussed the conclusion usually is arrived at that such subject matter should be mastered "as is found in any of the standard texts on the subject." The demands made upon the textbooks being few, the books naturally are rather uninspired. It is my purpose in this paper to outline some of the principles and methods which would give this subject its proper vitality, power, and importance in our curriculum.

In the first place, a certain amount of historical study is not only valuable but imperative. This does not mean that the pupil should study the constitutional history of the United States, although it perhaps makes it necessary that the teacher should have done so. The study of genesis and development is fundamental in the education of a modern man. Of course, the history of the units of government in America should, in this connection, be treated in a very elementary way; still it should be used not only in connection with the constitution and the national government, but as well when studying the state, county, township, and city.

This historical study is necessary for an understanding of contemporary institutions. An Oregon child, accustomed to the county as the smallest unit of government, would be sadly puzzled in the northern states upon finding a smaller unit, the township, unless he understood the history of these two units from their origin on American soil in Massachusetts and Virginia. An investigation into the attempts at union of the colonies, and the

reasons for their failure, throws a flood of light upon our national government.

Closely connected with this is the feeling of fluidity in institutional life which is one of the most precious results possible from such a course. Students should learn that institutions develop, change, adapt themselves to the needs they must meet.

An historical background furnishes materials for an intelligent estimate of contemporary movements. The student of the history of municipal government knows that the executive head has replaced the committee in managing the departments of the executive branch of city government. With this knowledge he is able to give a far sounder valuation of the commission plan of municipal government than would the man who can look upon this rapidly spreading form only as a new "fashion" in government.

My second suggestion is that such vital problems as are confronting our best citizenship should receive consideration in this course. The relation of government to big business can be discussed, giving the student at the same time a reading knowledge of trusts, monopolies, tariffs, railroad rate regulation, and other like matters continually up for discussion in books, magazines, and newspapers. The really remarkable fact that the nature and methods of political parties is not usually studied can only be explained by the tendency to cling to an analytical study of the constitution as the main body of the course. Among other matters which should be given some discussion are charities, public health, the initiative and referendum, politics as a profession, immigration and settlement work. Many other like topics will occur to the teacher.

It may be objected that such a course would be too difficult and comprehensive for a high school student. The subject, indeed, is so rich in opportunities which ought not to be passed over that the course should be given in the senior year for the student to derive its full benefits. Nevertheless, I have used these suggestions with success in a class of freshmen.

The aim of the course as a whole should be patriotism and good citizenship. We should show our students how to live for their country and inspire in them a desire to do so; then we may be sure that when the occasion requires they will not be unwilling to die for it. Our students should go out from the course in Ameri-

can government with a feeling that life is largely institutional; that these institutions offer opportunities for social enterprise; that along with these opportunities go duties and responsibilities. We should train our pupils in this attitude. The course must therefore be synthetic and concrete rather than analytic. Its object should be not so much to train scholars as to produce good citizens. For this reason contemporary problems should be treated fully, always with close study of proposed solutions and reforms. It is not necessary to arrive at definite conclusions. To stimulate active, intelligent interest in government is sufficient; and if that has been accomplished, the purpose of the course has been served.

Great Educators*

II

Fénelon

A. A. Wetter, Wendell Phillips High School, Chicago, Ill.

FENELON—synonym for gentleness, charm, refinement, brilliant scholarship, for everything that is lovely and lovable—is one of those persons at the very mention of whose name one's pulse beats quicker and one's eyes shine brighter.

Born in 1651, of a noble family, his mother, as well as his own desire, prompted him to devote his time and attention to foreign missions; but a delicate constitution forbade any hardships he must of necessity encounter in his labors in foreign lands and amidst a foreign element. In 1675 he received a call to become the director of a convent in Paris, where he remained for ten years, and when in 1685, Louis XIV, the narrow-minded, arbitrary King of France, he who challenged parliament by saying: "L'Etat, c'est moi!" revoked the Edict of Nantes, that glorious work of Henri IV, which gave every person liberty of conscience, Fénlon was sent to the most troublesome part of the country, to Poitou, to pour oil on the turbulent waters.

In 1689 the Duke of Beauvilliers appointed Fénelon preceptor of the Duke of Burgundy, the grandson of Louis XIV. His manners made him a fit, if not the fittest of tutors to the little prince. His natural born courtesy, his way of putting himself on a level with his surroundings, his wonderful tact, his gift of presenting every subject in an easy, clear light, his sweetness of temper, his abundance of patience and, last but not least, his severe and thoroughgoing methods, all this made him a teacher par excellence.

*A series of brief biographies of noted Educators to be continued in Education throughout the current school year.

His ideas of bringing up and educating children, as exposed in his books, are as far-reaching and lofty as they are good and true. A child to him is a tender plant to be protected from the rough winds by a careful, tender hand; in other words, wisdom and knowledge are not to be taught by harsh, scolding words, not by inculcating dry, uninteresting facts into the impressible brain of the pupil, but by showing him stern science from the pleasant side, by intermingling study with play, duty with pleasure, facts with fancies. He warns the teacher against the too often practiced dictatorial dignity; against the utter absence of confidence between teacher and pupils, a confidence which begets love; against a too harsh, unforgiving chastising of their faults, faults which ought to be looked at in the light of shortcomings, to be overcome by the constant attention of the teacher; against losing his self-control in moments of anger and vexation.

His first book, "De l'Education des Filles," was written at the age of thirty-two. Although the title indicates an exclusive book on girls, its suggestions can be applied with equal success to boys. In it are displayed sound, common sense, a remarkably fine observation and a thorough knowledge of the world in general and the human heart in particular.

Fénelon's educational method is a labor of love; the desire to make children happy. The book is full of profound ideas, all of them expressed in a simple, clear, natural, yet elegant style.

"Le Télémaque" is, before everything else, a treatise on morals and education under the form of a novel, written solely for his young charge, the Duc de Burgundy, embodying in it the principles on which he based his educational methods. In the person of Télémaque, son of Ulysses, who wanders all over the earth in search of his father, Fénelon presented to his pupil a model young prince, guided by Mentor or Minerva. All the adventures which young Télémaque experiences have but one aim; to instruct him in the difficult art of governing his people. The wise preceptor not only aimed to train his pupil in habits of self-control, but to qualify him for his high position by awakening in him true and large political instincts. It was a difficult task for Fénelon, and he had ample occasion to put into practise all his theories, for to judge from his letters and biographies, the little grandson of the "grand monarch" was a self-willed, imperious little imp. But evidently

Fénelon had struck the right keynote with him, for we also know, through the same source, that teacher and pupil became and remained the closest friends until death claimed one of them.

The archbishopric of Cambray was the reward for his zeal and success with his royal pupil; but to Fénelon it was more a disgrace than a favor, for to live away from the court, away from his friends and his well beloved pupil, was a bitter disappointment, so much more so as a storm of controversy arose over some of his later writings concerning the religious mysticism, known as Quietism.

He died in 1715, saddened by the loss of most of his friends, mourned alike by friends and foes, at home and abroad, for the beauty of his character was such as to endear him to all who had come in contact with him, personally or mentally. One of his characteristics had been never to become haughty or supercilious at any success, nor show any dejection at failure or disappointment, and he carried this resolution through to the end of his days.

Saint Simon says of him in his Mémoires: "His prevailing characteristics were refinement, intellect, courtesy, modesty, and noblesse."

A. Wetter.

Dramatic Training in the Normal Schools of New York State

By Christabel Abbott, State Normal School,
(Geneseo, N. Y.)

THIS is the golden age of action. One scarcely dares take time to sleep for fear he will be left behind in life's contests. Through science man is mastering the earth, discovering its hidden secrets by tunneling beneath its surface. He is even mastering the heavens and riding upon the clouds. All things give way before his mighty master touch.

This is an age when the humblest man who has an idea new and convincing may make himself felt.

When we visit the old world the professional guide expects us to worship the ancient because it is ancient. In the new world we are expected to admire the new—sometimes because it is new.

A physician who practices the same way he did fifteen or even ten years ago wonders why fewer patients call upon him for assistance. The minister who does not study the times and who preaches the same kind of sermons he did when he first began, wonders why his congregation is falling off. A business man who conducts his little corner store the same way he did ten years ago wonders why his customers pass by his door to purchase goods of the merchant up the street. A teacher who does not study constantly to keep pace with the best of her profession is surprised that her position is soon taken by another.

The Teacher! More things are expected of her today than of almost any other human being. Some fear that in the attempt to do so many things she will be like the Chamelion which burst itself in trying to be all the colors of the Scotch plaid.

Every year hundreds of teachers pass from the doors of the Normal Schools to assume the responsibility of training the children of the public. Each one of these instructors is provided with a good sized medicine case filled with suitable doses, presumably to cure all educational ailments of mankind. Formerly it was

only required of the teacher that she be a kind of "reciting post". If the children passed their examinations and strict discipline had been maintained, she was considered a model teacher. Not so today, for the one great aim of the teacher toward the pupil is character building. The program is fitted to the child and not the child to the program. Formerly the child sat in his little cell—his seat at school, while the teacher, a kind of policeman who was always on duty, towered in front of him. When she sat with an invisible ramrod up her spinal column, we knew it was not for us to reason why. It was not for us to make reply. It was for us to do or die. We dared not look to the right of us. We dared not look to the left of us, for if we did, volleyed and thundered the irate teacher. Yesterday life was one thing, school another. Today school is life. Someone has said "The children used to prepare for life by learning the rules of the game." Now they actually prepare for life by playing the game itself. Today the child in school dares to move. He is even allowed to play and, best of all, the teacher plays with him and he forgets it is school; but he learns the same difficult facts to be mastered that a child has always had to learn and it is so delightful and interesting that he loves it.

Recently when the children in the first grade of our Normal School were having their daily reading lesson a child read in a monotonous voice and with no expression. Each word was cut distinctly from the other and he was just saying words. He read: "Ann - let - us - play. What - shall - we - play? Let - us - play - tag. Then - run - or - I - will - catch - you." "Put down your book, Mary", said the teacher. "You and John come here in front of the class. John, you ask Mary to come out and play. Then Mary, you run when John shouts "Run or I will catch you." They do as the teacher requests, and in high glee, with all the expression equal to the occasion, John shouts, "Run or I will catch you". Then they return to the reading lesson and repeat the words, this time in natural expression. Some call this dramatization and so it is, but I like to call it just living the reading lesson.

Another time when we visit some of the other primary grades the teacher may be telling the children the story of Hiawatha. The teacher asks if they would like to play it. Then, with joy in their little faces, they live the great Indian story. Some day they will play the story of the Pied Piper or a fairy or folk story, or hero

tales or stories of primitive life. In fact all the material used in dramatization is taken from the course in reading, language, literature, geography and history, as outlined by the regents syllabus. In the new Syllabus just issued, we have the backing of the State authorities in the use of dramatization in the public schools. They realise that the fact acted is the fact remembered.

The children act out the Hawthorn tales, the Arabian Knights. They impersonate the carpenter, the blacksmith, and in fact all industries. They laugh with the fairies and they also live the life of the children of other lands. If you should visit another class in our school, you might find a group of children sitting on the floor with their feet under them, and they may be eating rice from a bowl by means of two thin wooden sticks for chopsticks and playing they are Japanese. Sometimes they are dressed in costume. Not long ago one of the members of our Faculty took a trip around the world and brought back with her costumes, including dress and shoes, of different peoples she visited. This is the property of the school and used frequently in dramatization of the geography lesson. The children travel around the world by acting out the characteristics and customs of the people of the earth, and they enjoy the trip almost as much as if it were real.

In the history class the children play "The Landing of Columbus". One group of children may represent the court at Spain. In royal dignity the King and Queen occupy the throne. There is the group of Columbus and his followers. They set out on their expedition. Finally, after passing through mutiny and discouragement, they are overjoyed at the sight of land. The children themselves make up the dialogue. This requires a thorough understanding of the historical facts. In after years if you should ask the children what incidents in history they remember most vividly, it will be those that they acted out.

Sometimes when they have been acting a scene from American History, they will end it by pledging allegiance to the American flag, which is always an impressive ceremony.

In the fifth grade the children are now preparing a play of the Odyssey. Each child writes a certain part, putting in dialogue where he wishes, and the best one, voted to be so by the class, is chosen as a scene to be used in the final play. When it is all written they are going to act it.

In one division in the eighth grade they have been acting out Julius Caesar. In another division they have been dramatizing the Lady of the Lake. In nearly all cases the dramatization is in charge of the pupil teacher, who has been taught in the methods classes how to dramatize. It is under the immediate supervision of the critic teacher.

The young men who go out as principals of schools and the young women who are soon to be teachers act out the children's dramatization. These grown-ups play the story of the Three Bears or play they are a train of cars, or act out the story of Little Red Riding Hood, or Pandora and Her Box. In order to teach dramatization the teacher must be able to put herself in the wonderland of the fairies and forget she has grown up.

In the methods class in literature the pupil teachers have been studying Hamlet, and have been most instructed by acting it.

In the geography methods class the pupil teachers have been holding meetings in their Travel Club. At these meetings they represent Japan, China, Italy, and in fact every country which lends itself to impersonation. They play their games and dance their folk dances.

There are many teachers in the public schools of the state who have never had any training in the use of dramatization, but with laborious effort and with much trepidation they are trying to use it in their teaching. Soon nearly all the Normal Schools of the State will send out teachers trained in the use of dramatization.

About two weeks ago I sent two questions to every Normal School in our State. In one I asked them to find out how many of their student teachers had been taught by means of dramatization before entering the Normal. As a candidate for a Normal School is required to have been graduated from a High School, he has had the eight years of the grades and about four years of the High School. This report shows that almost none have had this training in dramatization before entering the Normal. In my second question I asked if they were teaching dramatization. In nearly every one they were using it; but one said, however, "We have enough other troubles that we cannot dodge". One of the largest Normal Schools of the State said: "Up to the present time the training of the pupil teachers along this line in the Normal department has not been especially emphasized, but we are en-

deavoring to put more stress upon it and give it a much more important place in our course." They add, "The work in the grades in the English language and story-telling is emphasized wherever possible by the use of characters and by means of native costumes worn by either the student or the pupil teacher." And so we see what a firm hold this kind of teaching is getting in our public schools.

We do not wish to seem to over-estimate the use of dramatization or to use it until it becomes too prominent. It should be a means to an end—not an end in itself. No method of instilling truth into the mind of the child is fraught with more danger than this same dramatization. Used injudiciously it may result in harm; used wisely and not too often it is of inestimable value. We do not advocate the teaching of stage-craft to the children of our public schools. Miss Herts, of the Educational Theatre of New York, says: "If dramatization is allowed to become a finished performance, there will in a few years ensue a righteous revulsion against dramatized school work, and all the good which the scientific, intelligent use of the fundamental principal might have effected will be worse than lost, because of its ignorant application". Someone has said in connection with the use of dramatization in the grades that dramatic instinct is to be made a gate-way for the soul and mind into a larger experience—not a gate-way for personality into exhibition.

The talent to entertain others is given to the few and the world honors such with mighty applause. Those whom nature has so generously endowed with dramatic talent will be patient with the fact that the public school will send out few actors of the theatre or great elocutionists; but the children through dramatization in the schools, will learn to be more active on the stage of life, and each will learn better how to play his part. The teacher, through kindness, sympathy and real heart interest in the soul development of the child, will make him free to act and talk without restraint. She will help him to work out his own education. Truly, we say, and say it reverently, "A little child shall lead them". The great error of some teachers is always to call upon those most gifted to take the best parts, leaving those of weak personality to take an insignificant part or none at all. It is the weak we desire to make strong; the too haughty, more humble. And so

we give the timid an heroic part, the too bold a gentle part, the goody goody child the part of some desperado in a story of adventure. We have seen boys who were bashful or indifferent to school, through dramatization to change their whole attitude toward learning. Discipline has been improved because the boys were interested in their work. Boys who had a love for the cheap and trashy show have turned that into a love for the heroic, the noble in literature, history and life.

Let the teacher use dramatization as a means of character building and in broadening the experiences of the child, and it will be recognized as a most powerful method of education.

Classic Sonnets

On the "Singing Gallery" of Donatello.

Break forth with the young gladness of old days,
As flowers in flame and dew break from the sod
Beneath the primal smile of the Spring's god,
Renewed each year; in such fresh roundelays,
Cleaving the azure vault in ringing praise
From veins full-fed and joyous feet that trod
To music spite of lack and ruler's rod,—
O hear these children sing, 'neath Art's full blaze!

Our comrades they, though dead for many a year.
I feel my swaying pulses join their glee—
Feel fetters fall that too long have entwined
The lightsome spirit; and the light, grand, clear,
Of passionate Italy shines over me,
Despite her pain, to life's great bliss inclined.

HELEN CARY CHADWICK.

The Old New England Academies

By William A. Mowry, Ph. D., LL. D.

AMERICAN society has made great advancement within the century just closed. This improvement has been in all directions. It has been most rapid within fifty years past but the foundation of great movements was laid in the first half of the century. Nowhere, perhaps, has this progress been greater than along the lines of education and the general intelligence of the masses.

Popular education has run rampant. Many of the pedagogical leaders of today appear to think they have reached *Ultima Thule.* Some of these educators, you would suppose, to hear them talk, had adopted the motto that "All that is true is *new*". Sometimes after listening to their account of educational progress we are led to query whether the fathers knew anything, or whether any of the customs and methods of fifty or one hundred years ago were of any worth.

We are now living in a nervous age, educationally. *We have no fads!* O no, not at all! We preach the gospel of education, the true orthodox gospel. We have improved greatly on all such old fellows as Aristotle, Socrates, Milton, Shakespeare, Froebel, Comenius, Alexander Hamilton, Horace Mann, Pres. Wayland, and Mark Hopkins. Such men, to be sure, served their blind age and generation, did well *for their time,* were great lights in those dark days, and might be reckoned as John the Baptists. They were forerunners, but *we* now have Stanley Hall and Col. Parker, Johann Friedrich Herbart and William Hawley Smith, not to mention hundreds of lesser lights.

Moreover we have great institutions now, based upon true psychological principles. We have the large Universities, the splendid Colleges, technical schools, Institutes of Technology, and scattered all over the land, high schools, public high schools, free high schools, where the very best preparation can be had, to fit the young men and young women,—or rather I would say, boys and girls,—for the university.

Far be it from me to detract one iota from the just fame of the present American System of education. It is one of the most potent agencies for good in this world of ours. It has made immense improvements. Its progress has been by gigantic strides, until it is true that all along the educational lines our system today is vastly superior to that in vogue a century ago. The public high school is entitled to great praise. New England, but especially Massachusetts, should be greatly honored and praised for establishing, maintaining and improving the public high school. By its means secondary education has been carried to the masses of the people. What was once the *privilege* of the few is now everywhere the *right* of the many.

But let us not fall into the mistake of supposing that "all that is true is *new*," or that "all that is new is *true*". Almost every question has two sides, and, while I must not be misunderstood,—no one must suppose that I would say a single word against the high school system of today, yet it is the purpose of this paper to call attention to and emphasize the good which came from the *New England Academy* especially during the first half of the last century.

1. That which costs little is usually lightly prized. On our present plan the high school everywhere is free but in the old days the pupils paid tuition at the academies. We rejoice today that the schools *are* everywhere free but we must not take it for granted that this is an unmixed good.

Forty years ago I was principal of the high school in one of the largest cities in New England. I had been in the school long enough to have brought the methods, courses of study, everything pertaining to the teaching, into what I considered good order and I fondly supposed that the school illustrated the best plans, best methods of teaching, and the most philosophical course of study. Upon one occasion I invited a young man from a rural district, back in the country, to visit my school. He came, took a seat in the rear of the room, listened to the recitations carried on in the various studies pursued. He was a lad of about sixteen or seventeen years, bright, active, intelligent. He had never seen a city school before. When he went home to dinner with me I supposed that naturally he would express great interest and some surprise at the studies, the important truths taught, and the high grade of all the work

done; but he had little to say, until, finally, I questioned him directly and asked him what he thought of the school. His reply was quick and sharp, right to the point. *"I don't think much of it."* "Indeed," said I, "what is the matter with it?" "The scholars idle away their time, they do not appreciate their opportunities. I could do more in one week, if I had such advantages, than they do in a month." That was his view of the case. The school was free. The boys were made to attend by their parents and they, in his judgment, failed to appreciate their privileges.

Not so in the old academies. There the boys and girls, many of them, made great sacrifices in order to secure the advantages of academic learning. The school may have cost them but a few dollars yet those few dollars were difficult to secure. Wages in those days were small and much hard work was often essential to earn $5.00 or $3.50 to pay a term's tuition. Having earned that money and paid it to the preceptor, each pupil felt himself under the greatest obligations to "get his money's worth".

2. The present high school system is regular, systematic, continuous. In the old academies pupils frequently came for a single term of study. Doubtless the advantages are great today from this systematic study year in and year out, and year after year, but, in those days the classes were adapted to the pupils, now the pupils must be fitted to the classes. There is, inevitably, something of "the machine" in the modern system. Then such studies were taken by each individual as were supposed to be the most needed. Now the curriculum is determined upon by school boards and each young person must take the studies which have been arranged by "the powers that be", whether these studies fit the case or not. Under those circumstances the progress, inevitably, of each pupil was often much more rapid and even more thorough than is the case today.

3. In the old academy the select character of the pupils was a great advantage in comparison with the modern high school. The high school is open to all. All children who have passed through the grammar grades are admitted to the high school, good, bad or indifferent. Under the old plan only the best, the brightest, the most energetic and industrious of the young people were found in the academy. An intelligent gentleman, one of my friends, who had a son in college, said to me, "I believe my son will gain more

from his association with his classmates than he will from the instruction of the professors. The clashing of mind with mind, the rasping of one mind against another, the constant measuring of ones self with his peers,—these things are certainly of great advantage to any young man. In the old academies the boys and girls met their equals, compared notes, not only studied the lessons but each mind came in contact with minds of the same grade and the same caliber.

4. Definiteness of purpose is an advantage hardly to be overestimated. The boys and girls today in the high schools have no purpose. Plans for life have not yet been made. They are studying the lessons assigned them, more or less aimlessly. Not so in the old academy. Every boy and every girl had a purpose, a plan, a clear, sharp, definite plan for the future. They were preparing to teach, or for a trade, or it may be directly for a profession. Hence they made the most of their time and their opportunities. You, my friends, who can remember those halcyon days of fifty years ago, and can compare them with present conditions, have, I am sure, often been impressed with the fact, plainly seen on every hand, that greater progress, greater development, was made by the pupils in the old academy than is commonly found in the high schools of today.

5. Not the least of the advantages which accrued from the old academies of fifty years ago and more was the particular type of mind then found in the preceptors. In those days to teach successfully in an academy, was no slight task. Not every college graduate could succeed in it. Only here and there was a bright man found, a man of parts, of intellectual strength, of sufficient versatility and capacity for rapid growth, who could teach thoroughly and manage successfully a country academy. Those were marked men in the community. Of the college classmates of one distinguished and honored preceptor, six were teachers, six clergymen, four doctors, and three were lawyers. Some of these men became distinguished in their several callings. One was a well known Baptist missionary, one became a popular Episcopal bishop. One was a noted teacher of music. Another was afterwards distinguished as one of the foremost librarians in the country. Among them all, however, few would have been successful as preceptors of an academy. The very duties that were placed upon such a pre-

ceptor rendered rapid intellectual growth necessary and unavoidable. Look at the life of the Rev. Dr. Andrew L. Stone, a distinguished preceptor of an Academy. He became one of the most noted preachers in America, a great pulpit orator, the beloved pastor for many years of the Park Street Church, Boston. Later he built up, to gigantic proportions, the First Congregational church in San Francisco. His great intellectual growth was at least begun while he was preceptor of an Academy. The peculiar duties of the principal of an academy in those days rendered this intellectual growth a necessity, else the man failed. In the first place he must teach a great variety of subjects. A narrow man may become an expert in one line. It may be in teaching Greek, or some branch of natural science, or the first principles of rhetoric, but when a young man, lately from college, is called upon to teach all the higher mathematics, the leading branches of science, the English language, history and political economy, the Latin and Greek tongues, and what was then termed mental science or intellecual philosophy, he must be a broad minded man. He must be a *broad minded man* or else *he fails* in his profession. Again, he has among his pupils many bright minds and he must be the leader of them. He must learn what branches of study they need to pursue, and he must be an expert in those branches, whatever they are, however numerous they may be. It requires great strength of mind, an unusual versatility of intellect to do successfully that sort of work

Now let us bear in mind that the pupil learns more from the instructor than he does from the text book, that it is a matter of greater consequence who and what the teacher is than what studies the student shall pursue, and we can readily see what the old academy did for its bright, young pupils. If the preceptor is making great intellectual growth and advancement we may well suppose the student will do the same thing. One need not fear contradiction, if he should contend that the preceptors of New England fifty or seventy-five years ago ranked among the *strongest* and *brightest* minds of the country. Many may be "qualified" to teach a country high school today. Few were competent in those days to be successful principals of New England academies.

While we recognize fully and thoroughly the great improvements in our modern methods of education, superior to the old time as they are in so many ways, yet, let us not be unmindful of

the peculiar advantages which were derived in our early days from that famous and laudable institution, now so nearly passed away, the Old New England Academy.

The Professor

Scholastic calm sat in his deep-lined face,
  Thought traced its furrows on his brow,
He seemed, sometimes, to look toward outer space
  Unconscious of the passing now.

The complex storms of earth disturbed him not
  He lived above them free to dwell
Upon the heights where worry is forgot
  And love doth always say "'Tis well!"

In nature and in books his lore was great,
  And yet he gave it to the least,
As if it were a glorious golden fate
  To be an humble teacher-priest.

Years changed him not and when the curtain fell
  And he passed on to greet new light,
So many gentle hearts loved him so well
  Death brought no shadow of the night.

CHARLES W. STEVENSON.

Examination Questions for Spenser's "Faerie Queene."

1. Describe the literary form of the FAERIE QUEENE. What is the essential distinction between allegory and other forms of didactic fiction?

2. Under what circumstances did the allegory become the most widely popular form of fiction in western Europe during the Middle Ages?

3. Would you recognize the allegorical character of the first book of the FAERIE QUEENE without the aid of the title and the rhymed introductions to the several cantos?

4. Does it appear to you that Spenser employs the style and language of the romance of chivalry to adorn an allegory, or does he rather use the allegory as an appeal to a class of readers which would not be attracted by a mere romance of chivalry? Give reasons for your answer.

5. What is the meaning of the word Fairy (or Faery or Faerie) as used by Spenser? To what extent does this meaning differ from the modern use of the word?

6. What part does the Fairy Queen play in the poem? Does the story of the first book describe the adventures of a fairy knight in the world of ordinary human experience, or is the whole scene enacted by fairies in Fairyland?

7. Describe the plan of the poem as a whole. Relate briefly as much of the story as is necessary to explain this plan.

8. Describe those customs of chivalry which are the groundwork of the first book of the FAERIE QUEENE.

9. In the poem, identify Gloriana, the Red Cross Knight, Una, Arthur, Fidessa. What does Gloriana typify? Of what is the Red Cross Knight the symbol? Una? The Wandering Wood? In Canto ii, what does Fidessa typify?

10. In the introduction to the FAERIE QUEENE, what three personages does Spenser invoke? Which portion of the poem is inspired by each? How is Queen Elizabeth characterized in this introduction?

11. Describe the opening scene of the poem (stanzas 1, 2, 4-6). Give the allegorical interpretation of the "old dints" on the shield of the Red Cross Knight. Whence did the Knight obtain his name? What was his mission? (Stanza 3).

12. Relate in plain language the story of Una. Allegorically considered, of what are the ass, the lamb, and the lion symbols? What moral lesson is taught by the introduction of the dwarf into the story? (Canto vii., stanzas 19-27).

13. From Canto i, reproduce the word pictures of stanzas 14-15; 40-41. From Canto ii, reproduce the word picture of stanzas 12-13.

14. Describe in plain language the first adventure of the Red Cross Knight. Interpret the allegory. Describe the manner in which Saint George is introduced into the story. Tell all you can of Saint George and the legends connected with his name.

15. Under what circumstances in the progress of the story does Holiness desert Truth? Relate that portion of the story which symbolizes the condition of affairs during the early days of the Reformation. What are the significance and meaning of the expression The Reformation?

16. Interpret the allegory contained in the description of the Palace of Pride in Canto iv; of the Enervating Fountain in Canto vii.

17. Tell the story of Canto x in the symbolical language of Spenser. Interpret the allegory.

18. Relate in plain language that portion of the poem which teaches that Truth wedded to Holiness will conquer Sin.

19. From Canto i, make a list of 10 words, now obsolete in the sense in which Spenser uses them. Write a sentence for each word giving to each its modern meaning. Trace the connection between the two meanings.

20. Relate the story of the Red Cross Knight without reference to the allegory. Draw the contrast between the Red Cross Knight of Canto i, and the Red Cross Knight of Canto vii. What is the ethical teaching of this contrast?

21. What part does Arthur play in the story of Book I? How does Spenser's Arthur differ from the King Arthur of Tennyson's "Idylls of the King?" Relate the episode in which Una sends Arthur to rescue the Red Cross Knight. Interpret the double allegory (ethical and political) of this episode.

22. Write a short paper on the subject, The Mythology of Book I, of Spenser's FAERIE QUEENE.

23. Describe the vision of the New Jerusalem. Describe the manner in which the heavenly city is presented to the view of the reader. Describe the preparations made by the Red Cross Knight for this vision. What is the knight's desire as expressed in the last stanza of Canto x?

24. Describe the slaying of the dragon (Canto xi.). Interpret the allegory.

25. What place does the FAERIE QUEENE occupy in English literature? Show, by citing passages illustrative of each characteristic, that the author of the FAERIE QUEENE possessed brilliant imagination, fertile invention, rich color, fervid romance, and a wonderful command of fluent and harmonious versification. Describe the "Alexandrine Stanza."

American Notes—Editorial

A new school year calls for a recount of stock on the part of the earnest teacher. What qualifications have I for success in this great work? What are the sources of power in it? What weaknesses and dangers threaten my success? How can I increase my efficiency, insure growth in my profession and "make good" in my own estimation and that of my constituency? These questions are asked subconsciously, if not consciously, by nearly every workman in any line of work. To ask them thoughtfully, with a desire to make the answer as nearly complete as possible, will materially help toward the attainment of a large success. May we offer three suggestions growing out of a long experience as teacher, pastor, citizen, parent and editor,—wherein we have had the opportunity to view the school problem from various standpoints. We sum up the qualifications for good teaching as follows: First, love your work. There can be no large success if you are teaching just because you have to, and are wishing that you could get out of it into something else, which you mean to do just as soon as possible. Do not say you cannot control your loves and hates, and so if you do cordially hate your work you cannot make yourself love it? We believe that this is fallacious reasoning. By determining to love the work you are in you can make yourself love it and this is your duty. Study the situation, looking for its attractions, its opportunities, its satisfactions. Let the mind dwell on these. Look upon the bright side. Associate with those who are enthusiasts. Cultivate a spirit of optimism, and you will find your work assuming new aspects and opening new vistas of joy and satisfaction. Follow the reverse course and you are doomed. For in anything so spiritual as teaching, the personal attitude, the mental atmosphere, has everything to do with the ultimate results.

In the second place love your pupils. Convince them as well as yourself that you love them. Some of them may begin by thinking you their natural enemy. They must be won. You cannot really teach them until you love them and they love you. We once knew a young lady teacher, some of whose youthful pupils went several blocks out of their way for the sake of walking to school with her every morning. One day she confided to us the fact that she "just hated the sight of those children". She wished they would leave her alone. She had enough of them all day without being bothered with them out of school hours. The best thing the town hiring her could have done was to dismiss her without delay. For there can be no success where the spirit exists that was thus manifested. The worth of affection, the loveableness of the immortal personality hidden in the soul of even the most unattractive and obdurate pupil must be seen and felt or there is no real teaching in the highest sense.

Again you must love your fellow teachers—or at least respect them sufficiently to co-operate with them. An inharmonious teaching force is as fatal to large happiness and success as a divided church, or an infelicitous marriage. There must be good team work; and how can two walk together, and pull together, except they be agreed? There is no place where "politics", not to speak of envies and jealousies, is more incongruous than in a school.

Three heads are enough for our little sermon,—which begins and ends in love.—A teacher who sets out upon the new year's work loving the work itself, loving her pupils and looking for the best and most generous qualities in her fellow-teachers, that she may co-operate with them in making the school an efficient force in the community, will have a good time through the year and find life worth living. We believe that there are many such teachers.

Boston has taken a long stride toward free instruction in music in founding its Music School Settlement. Musicians and social workers have built up a free academy of music for immigrant boys and girls. There hundreds of them are realizing an ambition, increasing their utility as citizens, lengthening the ideal period of childhood and counteracting the influence of the street.

Fear may make the criminal, Judge Lindsay observes. It cannot make ideals, and ideals alone can reach beyond differences in race, religion and rearing.

A remodeled brick tenement, used as a civic-service house, squarely in the heart of Little Italy, was offered gratuitously; twenty-three teachers and seven assistants volunteered; seven pianos were loaned; business houses gave the school credit for instruments and music; the City Library loaned a set of books, and $27 was put in the treasury.

"They are unlike any children I have ever taught" explained one of the teachers. "They never forget what you tell them, and they are so intent on their work they forget their surroundings. They are like men in the dark who see a light. They may practice on instruments belonging to the school as much as they will; they may buy instruments and music on its credit and pay for them at leisure, they may use its library and periodicals. They have a club meeting weekly at which they listen enraptured to stories from the history and biography of music, how Mozart was but four when he wrote his minuet, and Meyerbeer at nine was the most celebrated pianist in Berlin. They have recitals and receptions at which the parents meet the faculty.

Already, after but six months of existence, the school has proved self-supporting, and now it seeks to burst its confines and grow to full strength. It will soon be incorporated."

Reports for the fiscal year of the University of Chicago, extending from July 1, 1910 to July 1, 1911, show that 6,466 students registered

in that time, a gain of 459 over the corresponding period in 1909-10, when 6,007 attended the University.

Members of the faculty of the University of Chicago took an active part in the third annual meeting of the American Institute of Criminal Law and Criminology which was held in Boston on August 30 for a session of four days. Professor Walter W. Cook of the Law School of the University is one of the committee chairmen of the Institute. Professor James R. Angell has been a member of the committee which for the past year has been considering a system for recording criminal data. Professor William I. Thomas and Professor John M. Coulter have been investigating the conditions under which immigrants are brought to America by syndicates and put to work under conditions which tend toward criminality. The meetings of the Institute were held in connection with the annual convention of the American Bar Association.

The following facts worth knowing are from a leaflet of the State Normal School at Valley City, North Dakota.

Tuberculosis is the most widely spread and deadly disease that affects humanity. It causes one death in every ten and one death in every four between the ages of twenty and thirty. Thus, it finds its victims at the active working age, and carries off young men and women just entering upon the serious work of life. No age, however, is exempt. Tuberculosis is seldom, if ever, inherited. It is infectious, which means that it is communicated from the sick to the well by live germs—"tubercle bacilli"— and is fostered by bad living, impure air, darkness, dirt and dust. When you have cought lasting a month or longer, loss of weight, afternoon temperature, night sweats, run down feeling, don't delay, for delays are dangerous. Get the best advice obtainable—the best you can get is not any too good. This disease can be prevented, it can be cured. Think: 160,000 dying every year in the United States from a preventable and curable disease! On January 1st, 1905, there were in the United States 34 Anti-Tuberculosis Associations and 115 Sanatoria. On January 1st, 1910, there were 394 Anti-Tuberculosis Associations and 385 Sanatoria. These and similar organized movements have reduced the death rate from tuberculosis over forty per cent in the past twenty-five years.

It is given by one person to another. No new case can arise except from a previous one. The germs are contained mostly in the sputum. This gets dry, is ground to dust, gets into the air, is inhaled and a new case is thus produced. It may also be caused by drinking the milk of tuberculous cows. Since it is caused by a germ found in the sputum, the surest way of preventing infection is to kill the germs in all sputum or spit of every consumptive. You may have consumption and not know it. If you have consumption don't give it to others by spitting. If you have not, don't let others give it to you. Don't spit your-

self, and don't let others do so. The habit is as dangerous as it is disgusting. If prevention prevents, why not prevent?

If you have reason to suspect that you have consumption, consult a physician at once. Early diagnosis means cure. Late diagnosis means too often a life cut off in the midst of its greatest usefulness. Better be told one hundred times that there is no danger than once that it is too late. Live in fresh air day and night. Eat plenty of good wholesome food, avoid exertion, overwork and worry. Have constant medical attention. The dividing line between those things that hurt and those things that do not is so dim that a sick person is not able to decide which is best. Shun quacks and quack medicines. Get the best possible help. Every consumptive wants to get well, 85 per cent of them can if shown how.

Hon Carroll S. Page, Chairman of the Committee on Cuban Relations, has introduced a bill before Congress aimed to promote a better system of education along agricultural and industrial lines and in home economics. In a personal letter to the Editor of EDUCATION he makes the following suggestive comments on this measure:

"I believe the people of a great majority of the States in the Union are ripe for a beginning of the work on this great problem, but before they will take the initiative to any considerable extent the details must be worked out and the trail blazed by the general government, either in the way suggested by my bill or some other having the same objective points, as was done in providing education of college grade along these lines, and as was done in state experiment station work.

The High School, the Academy and the College are taking excellent care of those boys who are financially able to avail themselves of their advantages, but it requires only a superficial examination to show that the average boy, on arriving at the age when he must begin, because of lack of means, to be a bread-winner for the family, is neglected by the State and in far too many cases, following the lines of least resistance, drifts into a cheap manhood.

That Germany is now outrunning us in the race for commercial supremacy is universally conceded. In my judgment, this is due in a large measure to the fact that when the German boy reaches the age of 12, 13, or 14, his characteristics, his physical equipment, the bent of his mind—his idiosyncracies, so to speak—are carefully ascertained and he is given a training which equips him for the life work which he decides to follow.

Not so with the American youth of the great middle class, especially in our villages and cities. He is turned adrift and the question presented to his mind is not "what will my future life work be?" but rather, "Where can I get a job that will furnish me the wherewith to buy my clothes and pay my entrance with my best girl to the moving picture show?" If he can find a position as boot-black, newspaper

vender or messenger boy, he is content. In any event he follows the lines of least resistance and takes the work nearest at hand with little or no thought as to growing up into a well-rounded manhood. If he be a farm boy, he works along without specific training and becomes another of that great number who secure from the soil only half the profits they should.

We spend ten or twelve million dollars to build and equip a single battleship. The same sum spent for the benefit of these boys who are to be our farmers and industrial workers, and for those girls who are to be our home-makers, would change the whole course of their lives and thereby materially benefit the nation.

I believe that the expenditure of one cent per capita per month by the National Government—and that is what my bill calls for—if expended under the wise direction of a properly organized force, would put in motion the entire machinery which is outlined by my bill and which I feel confident will bring about the results so absolutely essential to the welfare of the great mass of the boys—and girls, too—of our land.

From the "Bulletin" of the University of Colorado we quote the following, which is suggestive of the breadth and richness of the program of the modern university.

Those who judge the university today by the college traditions of twenty-five years ago do not know the extent of the "practical" side in the modern university. The University of Colorado, two years ago, reorganized its college curriculum with the "vocational" idea in view. Every department offers many courses, "practical" as well as theoretical and cultural. For instance, the Department of Chemistry offers iron, water, ore, gas and food analysis, and physiological and industrial chemistry; the Department of Biology, sanitary science, economic botany, physiology; the Department of Geology, economic geology, and conducts the State Geological Survey; the Department of English, practical instruction in the use of the English Language; the Departments of Greek and Latin, the literature, art and civilization of Greece and Rome with application to the history and problems of today; the Department of Mathematics, accounting and insurance; the Department of Physics, mechanics and special study of electricity; Department of Psychology, experimental, educational and social subjects; the Department of Education, pedagogical training for teachers, including practice teaching; the Department of History, constitutional, social and industrial history of the United States; the Department of Economics and Sociology, advertising, problems in sociology, state and municipal government, politics, commerce, economic problems, banking, transportation, taxation, accounting. Moreover within the college is organized a College of Commerce that lays a broad foundation for many kinds of business life—banking, manufactures, jour-

nalism, trade, transportation, consular service; and a College of Education that prepares for the highest service in teaching, especially in the high schools. In the last two years of the college course each student is required to determine his aim and may select studies leading to business, teaching, engineering, the professions, or some definite field of scientific or literary knowledge.

Professor William A. McKeever, of the Kansas State Agricultural College, is doing good service by a series of brief "Home-Training Bulletins" which are being widely circulated. The following is a sample of the excellent suggestions he is making to the parents, teachers and boys and girls of the county.

There are more than ten million homes in the United States, and in these there is expended annually not less than three thousand millions of dollars for the up-keep of the household. This money is practically all invested by girls and women, very few of whom have had any instruction preparatory for such an important duty. Would it not be a matter of tremendous saving to those families and to the nation if all such girls and women were thoroughly trained in the best use of money? Would it not bring profitable returns in the form of happy, contented home life if the ordinary young woman should be given such a course of instruction before her marriage? The Good Housekeeping Magazine recently made an inquiry of five hundred bachelors as to why they had not settled down to the family life. The replies revealed an interesting, if not an alarming situation. The great majority of these men expressed the opinion that the average marriagable young woman of today is too expensive a luxury to take into a life partnership. The average minimum yearly income which they estimated to be necessary for a man who would venture into such an alliance was more than $2,200. Many statements made by these bachelors indicated their belief that the young women available for marriage are money squanderers rather than promising helpmates.

I have before me the catalogs of several select schools for girls and have looked them over somewhat carefully. In the course offered I find that the students are required to take advanced instruction in algebra, geometry and trigonometry and, in a few cases, analytics and calculus. At the same time I find scarcely a single line in any one of the catalogues that even hints of training in respect to the use and abuse of money. This whole scheme seems wrong and foolish to me. Where does the trigonometry apply in a good woman's life? Will it contribute anything toward peace, happiness and contentment in the home? Will it bake any bread, sew on any buttons or rock any cradles? What has the girl as a result of her course in trigonometry? The answer is, trigonometry, and that quickly vanishes from her memory. But the girl who has been taught just how to make a dollar do a dollar's worth

of service in supplying the necessities and the reasonable luxuries for her life—that girl has so much permanent culture.

* * * * * * * *

Far and wide I have made inquiry of parents as to the manner and amount of training they are giving their children in relation to money matters. During all this research I have found the cases of 110 boys who were being given anything like the business training that their conditions demanded, and *less than* 20 *such instances of girls.* "Oh, we try to furnish our girl whatever she needs to keep her dressed as well as those of her class," is the usual answer, "I hope my daughter will never have to know much about such matters," was the remark of an indulgent father who had in view a liberal inheritance for his child. "No, I don't know much about the problem of teaching my girls to save, but I wish I did," said a prosperous traveling salesman.

So the stories went on. There was a great variety of answers, but in them all very little evidence of a well-matured plan of action. It seems never to have occurred to many parents who have growing daughters that unless the young woman has a fair amount of knowledge of the value and use of money her future happiness and wellbeing and that of her family are to be seriously jeopardized. It is a singular and yet lamentable fact that so many American parents, parents, too, who are intensely desirous that their growing children have the best possible moral and religious teaching—that these same good parents fail to realize that one of the very foundation stones of efficient moral and religious life is constituted of a definite body of knowledge of common business affairs. They do not seem to realize that the young man or young woman who knows from experience just how money is earned and how it may be judiciously expended and profitably invested, is far on the way to a high plane of moral and religious living.

Parents who are inclined to bring up their children without a training in work are forewarned against the industrial democracy that now is immanent in this great country of ours. In school and college and university the watchword of industrial training is being set up. This new ideal most certainly provides for the same systematic training for high and low alike. Not only those who need to work for their daily bread but those who may never need to do so are expected to take a bread-winning course simply because of its disciplinary and character-building value. This new ideal instruction provides not only training in work for the youth of the land, but also training in play and relaxation and recreation. We are at last attempting to educate the whole boy and the whole girl. The time is now at hand when only the ignorant young woman will fail to know how a dollar is earned, how a part of it is saved, and how to make it go as far as it should in exchange for commodities.

It ought to inspire the mothers of the country to know that a new ideal of culture for women is gradually being inculcated, namely, that the cultured, well educated woman is one who has been made intimately acquainted with the details of home keeping and home management as well as with the traditional knowledge imparted in the higher institutions of learning. For example, at the Kansas State Agricultural College, more than six hundred young women are enrolled in the Domestic Science Department during each year. This work is pursued intensively, but not to the exclusion of the languages, literature, history and mathematics traditionally regarded as "culture" subjects. Moreover, the college has just turned out fifty of its brightest young women as graduates in domestic science. Nearly all of these have already been employed to teach their chosen subject in the high schools and colleges of the home state and at large.

Foreign Notes

FRANCE. The announcement on the part of Premier Caillaux that the appropriation for the ministry of Religion will be omitted from the budget for 1912, practically ends the movement for the separation of church and state in France. The regular clergy composed almost entirely of native Frenchmen do not appear to have lost influence by this movement which has not been directed against religion. With the decline of clerical influences in the schools there has come about intense activity in respect to moral instruction. French educators, are, in fact, taking the lead in the public discussion of this important matter and in the formulation of methods for making this instruction effective.

The Musée pédagogique is an adjunct of the French ministry of public instruction which is of special interest to the general student of educational affairs. It was the outcome of an investigation into the methods of other countries, conducted in 1878 by M. Ferdinand Buisson, and was created by a decree of May 13, 1879, drawn up by Jules Ferry and signed at his request by the President of the Republic. The original activities of the office were the collection and care of an educational library for the special benefit of teachers, the maintenance of a periodical, the Revue pédagogique, and the editing of a classified catalogue. The activities and the scope of the Musée steadily increased until 1892 when its development was arrested by lack of adequate appropriations. By a decree of Mar. 31, 1903 the Musée pédagogique was reorganized and united with the office of information and inquiries (office d'informations et d'études) which had been created by a decree of July 15, 1901. In its new form the scope of the Musée, which had been originally limited to primary education, was extended to the entire system of public instruction; nevertheless its practical operations still relate more particularly to the primary department.

The report of the work of the Musée for 1910 shows for the library 31,389 applications for books or periodicals of which number 15,913 were supplied at the homes of the applicants. The circulating library for the special service of teachers in the provinces of France, reports the loan of 4,849 volumes, an increase of 1,074 over the previous year.

The office renders a very important service as the medium for the exchange of teachers of modern languages in secondary schools, according to the system arranged between the governments of France and certain foreign countries. The summary of exchanges in 1910 shows 55 German (44 men and 11 women) teachers, placed in French secondary schools. Of this number 51 (40 men, 11 women) were from Prussia, 2 from Saxony and 2 from Austria. In exchange France sent 95 teachers (75 men and 20 women). Of these 91 (71

men, 20 women), were placed in schools of Prussia, and in Saxony and Austria, two each. As assistants in English in schools of France, Great Britain furnished 63 teachers (27 men and 36 women); while 34 assistants in the French language (13 men, 21 women) went to schools of Great Britain. The numbers given are exclusive of the assistants in modern languages in the primary normal schools of France for which an annual appropriation is made by the government. In 1910 the number of such assistants was as follows: for the German language, 19 (15 men, 4 women); for the English language, 51 (9 men, 42 women).

Special interest attaches to the part which the Musée pédagogique performs in the movement for popular education which has assumed large proportions in France. In addition to assistance in drawing up plans for lectures, courses of lessons, etc., the office collects, prepares, and lends illustrations for lectures and also views for the entertainment of country assemblies. In 1910 there were distributed from this centre 35,219 series of slides, of which number 31,679 went to teachers engaged in the work; 3,010 for the instruction of recruits in camps; and 530 series to professors of secondary education for use in courses of popular lectures.

ENGLAND. Among notable events pertaining to education in England during the current year, were the Imperial Conference on Education held in London two months before the coronation ceremonies, the conference on rural education which has become an annual occurrence, and the Universal Races congress, which convened at London University, July 26 to 29. The last named was the first congress of its kind and, although, not concerned principally with educational problems, was in a very broad sense educational and enlightening. Amid many speculative discussions of the moral possibilities and ultimate destiny of the lesser peoples of the earth, there were several papers embodying the results of experience in dealing with such. The most significant of these were presented by Sir Charles Bruce, late Governor of Mauritius, by Sir Sydney Olivier, Governor of Jamaica, and by Sir Harry H. Johnston, formerly British commissioner and consul-general in Africa. The papers prepared for this congress will be brought out in a volume edited by G. Spiller and published by the World's Peace Foundation, Boston, Mass.

Reform and reorganization are paramount subjects in university circles of England.. At Oxford the question of compulsory Greek has been advanced a step by the favorable vote of the congregation on the proposal to make Greek optional for students entering for defree courses in science and mathematics. The matter awaits the action of Convocation. At Cambridge proposals affecting the internal affairs of the university are mooted, and London is specially exercised over the adequate endowment and organization of its Medical Faculty. The modern universities established in the chief industrial centres, are all clamoring for resources equal to their needs. The administra-

tion of the annual grant in which they participate has been recently added to the duties of the Board of Education, which has accordingly organized a Universities Division for the discharge of the new duties.

SCHOOL DENTAL CLINICS. In connection with the system of medical school inspection maintained by the London County council, the care of children's teeth has become a matter of special concern, and accordingly the zealous education officer of the council, Mr. R. Blair, instituted a special inquiry into the conduct of school dental inspection in Germany. The report of this investigation is crowded with information and suggestions of general interest.

The movement for the care of children's teeth is of much later date in Germany than the establishment of medical inspection. In August, 1909, arrangements for the former service were in force in 42 different localities of the country, and above 600,000 school children were under inspection in this regard. Credit for the pioneer work in establishing school dental clinics is given to Dr. Jessen, a professer at the University of Strassburg. In this city which has a population of 167,000 with 20,000 children of the class attending elementary schools, a special building is being erected for this service in combination with other provision for the physical welfare of the children. Dr. Jessen is honorary director of the work and is assisted by two salaried dentists (women), one clerk (man), and two assistants. At this clinic 6,795 children were treated in 12,888 sittings, covering a period of about two years.

In Berlin, school dentistry did not originate with the municipal authorities but is conducted on independent lines in connection with the administration of the Imperial law providing for compulsory insurance against unemployment by reason of physical disability. The local education authority has assisted in the dental clinics by a contribution equivalent to $5,000.

A. T. S.

Book Notices

MARTHA IN HOLLAND. By Etta Blaisdell McDonald and Julia Dalrymple. A late addition to Little, Brown & Company's charming series of books known by the general name of "Little People Everywhere."

This is a series of illustrated books on child life in all parts of the world, written in a style intelligible to children from nine to thirteen years, and attractive to readers of any age. The distinguishing features of the series are the vivid word pictures of the scenes and life of other lands, and the treatment of the subject with a complete knowledge of what children understand and like. The attractive illustrations, made from good photographs, furnish a background of actual scenes that helps to make the stories and work pictures real and convincing. "Martha in Holland" (price 60 cents), is fully up to the high standard established by the previous books of the series.

MORRIS'S HORACE. SATIRES AND EPISTLES. Edited by Edward P. Morris, Professor of Latin, Yale University. Cloth, 12 mo. 493 pages, with introduction and notes. Price, $1.25. American Book Company, New York, Cincinnati and Chicago.

This edition differs from others chiefly in the greater emphasis which it places upon the thought of Horace as distinguished from the language, or the verse, or the allusions. Throughout the volume everything of an explanatory nature is given and made easily accessible to the student. The edition aims to avoid too much as well as too little annotation. The notes are not so exhaustive and do not treat of so many matters that they cannot prove usable for the average student. On the other hand, obscure passages are not merely indicated, but sufficiently elaborated to be perfectly clear. The delicate shades of thought and the significance of the terms used by the poet are fully brought out. In every particular this edition has been made as helpful to students as possible.

HISTORICAL READER FOR SCHOOLS. Compiled and edited by Horace L. Brittain and James G. Harris. Cloth, 12 mo. 266 pages, with portraits. Price, 75 cents. American Book Company.

A careful compilation of selections from the leading American orators, for use in the upper grammar grades and in high schools. Many of the extracts are admirably suited for declamation, while the book as a whole will be particularly useful for supplementary reading in history. The selections are presented in chronological order, and introduced by biographical notes. Footnotes explain all historical and literary allusions. Seventy-one different speakers and writers are represented in this volume, which offers within the comprehension and interest of school children, the best utterances of the leading American orators from Washington to Roosevelt.

WENTWORTH'S PLANE AND SOLID GEOMETRY. Revised by George Wentworth and David Eugene Smith. Boston. Ginn & Co. Price $1.30.

For more than a generation Wentworth's Geometry has been one of the leading textbooks on the subject. It has stood the test of time and might well continue to be used save that the editors decided to make certain changes in the text and took occasion to make a thorough revision of the book. Those who have used the book are aware of its excellencies, alike as a teaching book and a study book; in its revised state it retains all the excellencies and accentuates these by adding thereto many features that serve to illuminate the study and render it intrinsically valuable and practical. The success that characterised the Wentworth book must surely wait on the revised edition; we can well believe that even greater recognition will be given to this newer book on this subject of geometry.

THE RIVERSIDE READERS. Primer, First Reader. By James H. Van Sickle, Superintendent of School, Baltimore, and Wilhelmina Seegmiller, Director of Art, Indianapolis Public Schools, and Frances Jenkins, Supervisor of Elementary Grades, Decatur, Ill. Illustrated. Boston. Houghton, Mifflin Co.

In these two books the publishers have put forth the first of a series of readers that promise well for beauty of illustration and makeup, attractiveness of material, and practical usability. The material has been prepared with nicest regard to the power of the child to grasp and comprehend. The little stories are delightful in their human interest and appeal to the immediate environment of the child. The words used are already in his vocabulary, and the task set him is to recognize their form. No better books have been made for beginners in reading.

MODERN MATHEMATICAL TEXTBOOKS. First-Year Mathematics for Secondary Schools; Second-Year Mathematics for Secondary Schools; Teacher's Manual for First-Year Mathematics. By George William Myers, Professor of the teaching of Mathematics in the College of Education of the University of Chicago. The University of Chicago Press.

The object of this new course in mathematics is to do away with the present artificial divisions of the subject and to give it vital connection with the student's whole experience. The first year of secondary work is devoted to generalizing and extending arithmetical notions, to following up the notions of mensuration into their geometrical consequences, and to reconnoitering a broadly interesting and useful field of algebra. The second year book lays stress on geometry, holding the ground made in algebra during the first year. By the use of geometric problems to be algebraically solved this course serves the threefold purpose of keeping algebraic procedure in continual use, or holding the unity of the geometrical course intact, and of pointing out many connecting byways and overlapping districts of the two domains of elementary mathematics. These books blaze out a new method in the study of algebra and geom-

etry, and they merit the attention of all teachers of mathematics in secondary schools. The books mark an epoch in mathematical textbooks.

THE HINDU-ARABIC NUMERALS. By David Eugene Smith, and Louis Karpinski. Ginn & Co. Price, $1.25.

This is an interesting and scholarly study of the origin of the numerals, the introduction of the zero, the influence of the Arabs, and the spread of the system about the shores of the Mediterranean and into the various countries of Europe. It has been commonly considered that to the Arabs is due the origin of the numerals known as the Arabic, but research has discovered that the Hindus were the originators of the symbols; the proof of this contention is contained in this book which the authors have made after the most thorough investigation of the entire subject. The work is illustrated with numerous facsimiles from early inscriptions and manuscripts, most of which have not heretofore been published in connection with this subject, and all of which contribute to a very marked degree to an understanding of the proposition. The work appeals distinctly to all interested in mathematics; it should be in every schoolman's library.

ESSENTIALS OF SPANISH GRAMMAR. By Samuel Garner, Ph. D. Formerly Professor of Languages in the U. S. Naval Academy. American Book Co..

This book is simpler in its general treatment, and contains less detail than the author's Spanish Grammar published some ten years ago. In this book the endeavor is made to treat only such features of the grammatical mechanism of the language as are essential for the reading of ordinary Spanish. Dr. Garner believes that there is no surer basis for the acquisition of a practical knowledge of a language than a thorough drill in its grammatical structure, and to that end he has omitted the so-called oral work and confined the subject matter of each lesson to a development of the vocabulary and the rules that govern the use of the words in sentences. A valuable feature of the book is that devoted to letter writing and business forms.

POLLY AND DOLLY. By Mary Frances Blaisdell. Decorated cloth. Illustrated in colors. Price, 40 cents. Little, Brown & Company.

Polly and Dolly and Ned and Ted are playmates. They are busy, happy children, working and playing, and always finding something pleasant to do. These little stories tell about the good times the children have,—of the tent the boys make in the pine grove, of the prize melon they raised in their garden, of the sewing-school where Polly and Dolly learn to sew, of the game of make-believe bears, and of many other plays and games. The stories are written in short sentences and printed in large type, and all hard words have been purposely omitted so that the little ones may find no stumbling-blocks in their path as they follow the four playmates through their happy days. The book has been carefully graded for use as a supplementary first reader or second reader. The colored pictures are most attractive to the child.

MILNE'S FIRST YEAR ALGEBRA. By William J. Milne, Ph. D., LL. D., President, New York State Normal College, Albany. Cloth, 12 mo. 321 pages. Price, 85 cents. American Book Company, New York, Cincinnati and Chicago.

In this book the pupil first learns the fundamental operations in connection with positive numbers only. Later he extends these operations to negative numbers, thus meeting one difficulty at a time. Work in parentheses (which is always difficult for beginners), is not required before page 86, while easy solutions of simultaneous simple equations and of quadratic equations by factoring are introduced early. The treatment throughout is based on the pupil's knowledge of arithmetic. Equations and problems are made important, being treated at eighteen different points. The problems are based on interesting facts from a variety of sources. Graphs are treated in a simple and comprehensive manner, but are arranged so that they can be omitted, if not desired. Factoring is thoroughly done and made easy by the way the cases are classified and summarized. Accuracy is secured by numerous checks, tests, and verifications that the student is asked to make. The reviews are frequent, interesting, and exhaustive.

HANDICRAFT FOR GIRLS. A Tentative Course in Needlework, Basketry, Designing, Paper and Cardboard Construction, Textile Fibers and Fabrics and Home Decoration and Care. Designed for use in Schools and Home. Prepared by Idabelle McGlauflin, Supervisor of the Girls' Handiwork in the Denver Public Schools. Manual Arts Press, Peoria, Ill. Price, $1.00.

This volume supplies a need which has been deeply felt by teachers and schools of domestic science. The number of schools furnishing such courses is increasingly large. There is, therefore, a place for a satisfactory book of practical instruction such as this. A five year course is laid out, based upon established educational principles, and aiming to train the judgment, the eye, the memory, and to cultivate accuracy, skill good taste, perseverance, and other mental qualities demanded by the dictates of high art. Work is to be started in the third grade and continued through the seventh. The chapters are beautifully illustrated and the work is laid out in such a way as to engage the interest of the pupil. Use can be made of the volume for self-instruction in the home as well as for school purposes.

SECOND COURSE IN ALGEBRA. By Herbert E. Hawkes, Professor of Mathematics in Columbia University, William A. Luby and Frank C. Touton, Instructors in Mathematics in the Central High School, Kansas City, Mo. 12 mo., cloth, 264 pages, illustrated. Ginn & Company. Price, 75 cents.

The "Second Course in Algebra," by Hawkes, Luby, and Touton, is designed for the third half-year's work in algebra. It is peculiarly, though by no means exclusively, adapted for those students whose second year in mathematics has been spent in geometry. The book begins with a com-

plete and thorough review which has been carefully stripped of nonessentials. The review is enriched not only by a more mature point of view but by the insertion of pertinent material which is unsuited to a first course. The chapters which follow include all of the topics necessary for entrance to college. In their treatment many excellent methods which are comparatively recent are blended with the older ones which have stood the test of years. Among the special features may be mentioned the intelligent use of graphs. For example, in connection with logarithms they are utilized in a novel and powerful manner. At the same time, the number of graphs the student is asked to construct is carefully limited, and the labor reduced to a minimum by the inclusion of tables of squares, cubes, and square and cube roots. The exercises and problems are new, varied, and carefully selected. The historical notes and portraits which formed a prominent feature of the author's "First Course in Algebra" are continued. A serious endeavor has been made not only to express the definitions and theory with scientific exactness but in language which is simple and direct.

AN INTRODUCTION TO VEGETABLE PHYSIOLOGY. By J. Reynolds Green, Sc. D., F. R. S., F. L. S. Fellow and Lecturer of Downing College, Cambridge, Philadelphia. P. Blakiston's Son & Co. Price, $3.00.

This volume is the fruit of ripe scholarship and long experience in teaching. It embodies the many discoveries and new theories of recent years and sets forth the present day aspects of this branch of science. The correlation of internal structure with physiological need is elaborately set forth and the idea erroneously (in the author's opinion), held by some modern students that "many changes may go on in protoplasm without involving any interchange with its substance" is vigorously combatted. It is here held that in all the reactions of which it (protoplasm) is the scene, its own auto-decomposition and reconstruction are involved." In discussing the boundaries of the animal and vegetable kingdoms the author inclines to the view that there is a fundamental unity of all living substances. The volume is a real contribution to our knowledge of this interesting subject which is so vitally related to many practical human interests. It is a valuable text-book for higher institutions for learning.

VOCATIONAL EDUCATION. By Prof. John M. Gillette. New York. American Book Co. Price, $1.00.

In these 311 pages, we find a very interesting discussion of the great movement which seems to gain head and force all the time, toward vocational education; meaning by this such courses as are needed to meet the strong practical demands of life. This is a far wider movement than simply industrial education. Excellent actual results are shown from schools conducted on these lines. Professor Gillette would reorganize our educational system to meet the various community needs; the results to be greater efficiency and truer appreciation of the school, larger attendance and more compensation for teachers. We are sure superintendents

and teachers will read these pages with interest. As Dr. C. R. Henderson of the University of Chicago says: "There are many propositions in these chapters which cannot be altogether approved without further and critical consideration; but the survey is broad, the issues are living, and the contact with reality is beyond question."

SOUTHERN ORATORS. Selected and edited by Prof. Joseph M. McConnell, New York. The Macmillan Co. Price, 25 cents.

We have here 318 small pages of text containing thirty-four able orations or speeches by southern orators, besides over 70 pages of introduction and notes. These speeches cover over a century of time from Patrick Henry's "Give me Liberty or give me Death," to "The New South", by Henry W. Grady, delivered in New York City, December 21, 1886. Among the other great names are John Rutledge, George Mason, William Wirt, John Randolph, William Pinkney, J. C. Calhoun, S. S. Prentiss, Thomas H. Benton, Henry Clay, Alexander H. Stephens, Jefferson Davis, and Justice Lamar.

THE GIRL WANTED. by Nixon Waterman, Chicago. Forbes & Co. Price, $1.25.

The author of "Boy Wanted" is well fitted to write on the subject before us. He is full of cheerful counsel and friendly thoughts. The 146 pages of text are divided into these eight chapters: Choosing the Way; Accomplishments; They Joy of Doing; Some Every-day Virtues; The Value of Sunshine; A Merry Heart; Golden Habits; and The Purpose of Life. There is a great deal of sunshine and helpful advice in these pages. The author often turns from prose and expresses himself in verse, and while he is not a great poet, the thoughts are helpful and often comforting. And the three quotations on the side of each page are generally wise and uplifting. The girls who read these pages should be better fitted for the great work of living.

TWO LATIN PLAYS. By Susan Paxson. Teacher of Latin and German in the High School, Omaha, Nebr. Ginn & Co. Price, 45 cents.

In Latin literature there are no dramatizations suitable alike in subject matter, simplicity, and arrangement for reproduction in the high schools. Miss Paxson has written two plays, "A Roman School", and "A Roman Wedding," with the purpose of stimulating the interest of young pupils in the study of Latin. The content of each play is simple in the extreme, both vocabulary and idiom having been adapted to pupils of average ability, to the end that all taking part in the presentation may derive benefit from it and be brought to a realization of the fact that Latin was once a spoken language,—the only vehicle of expression that Roman boys and girls possessed. The plays have been presented several times by high school pupils and with an enthusiasm that bespoke a vivid interest in the subject and an appreciation of the value of the study of Latin. Full stage directions are given for the staging of the plays.

HISTORY OF THE UNITED STATES. By Andrew C. McLaughlin and Claude Halstead Vantyne. D. Appleton & Co.

The authors of this book are each heads of history departments in great universities and are well qualified to make a text for schools. Their aim in this book is to present the main historical developments in American history, the knowledge of which would enable the pupils to understand the social, political, and economic institutions which they find about them in this land wherein they live. The authors have made a textbook, not a story book; they have jealously preserved historic facts and have omitted most of the "yarns" that encumber many texts in our history. "If history is worth teaching at all, it is worth teaching as causal, vital, meaning history." The style of the book is conformed to the age and ability of the pupil using the book; the incidents are associated with salient facts; the facts are presented with due regard to their values, and the development of the growth of our institutions is logically and evenly set forth. The treatment of the tariff question, its rise and growth, and of the great industrial and social problems that now confront us, is exceedingly lucid and simple. A lad of twelve may not find these chapters beyond his powers of comprehension. An abundance of illustrations, numerous excellent maps and charts, and lists of suggested readings serve to make this a textbook in history of great value and importance. It will no doubt find a place for itself in elementary schools.

The latest issues in the Columbia University Contributions to Education, Teachers College Series, are: *Spinoza as Educator*, by William Louis Rabenort, Ph. D.; *A Special Study of the Incidence of Retardation* by Louis B. Blan, Ph. D.; *The Social Composition of the Teaching Population*, by Lotus Delta Coffman, Ph. D.; and *Progress Through the Grades of City Schools*—a Study of Acceleration and Arrest, by Charles Henry Keyes, Ph. D. Each of these monographs is a research study and embodies the latest statistics, analysis, and thought on the subject-matter.

PAPER AND CARDBOARD CONSTRUCTION. By George Fred Buxton and Fred L. Curran. The Menomonie Press, Menomonie, Wis.

This contains an analysis of the scope of paper and cardboard construction for primary grades of public schools, an outline of a course with directions for making the problems, information regarding courses, equipment, supplies, and methods of handling the work, and a bibliography of the subject. The problems deal with making books, cards, paper boxes, envelopes, card mounts and tag board pieces. The directions are particularly lucid and direct, the work is most carefully graded, and is entirely within the province of primary grades.

NORTH AMERICA, a supplementary geography. By James F. and Arthur H. Chamberlain. New York. The Macmillan Co. Price, 55 cents, *net*.

These California authors, who are widely known in educational circles, have prepared an admirable book of 295 pages packed with information about our great continent. And it is in such form that it will attract

and interest every reader. There are excellent, up-to-date maps and a wealth of illustrations which appeal strongly to the mind. So one's interest is aroused and his mind kept alert all the way along. Almost without realizing it, the youthful reader secures a great fund of accurate and valuable knowledge about the location, the extent, the animals, the productions, the climate, the scenery, and the people, of every part of this great and wonderfully diversified continent. This is learning made easy as regards geography.

PRINCIPLES OF EDUCATION APPLIED TO PRACTICE, by W. Franklin Jones, Ph. D. New York. The Macmillan Co. Price, $1.10, *net*.

We have read this book with great satisfaction. Seldom have we found a book in which the author showed such complete mastery of his subject. Here his work in the State Normal School at Baltimore stands him in good stead. His purpose is to work out the aim of education, and this aim is to make one "willing and able to realize the values of life." These values are ends that are good for every one. The beginning of instruction is the experience of the learner. Books should be suited to one's experience. The only motive of mind is interest, and the basis of all interest is use. The teacher must manipulate the impulses of the child and in due time direct its will. Every teacher should read this book. It is full of life and power and has a direct bearing upon all the teacher's problems.

A DICTIONARY OF THE BIBLE. By John D. Davis, Ph. D., D. D., LL. D. Professor of Oriental and Old Testament Literature in the Theological Seminary at Princeton, N. J. With many new and original maps and plans and amply illustrated. Third edition, enlarged and revised. Philadelphia. The Westminster Press, 1911. Price, $2.50. Postage, 25 cents.

This volume will meet the need for a smaller and cheaper Bible Dictionary than Hastings', which latter is and will probably long remain the standard. The difference in price, about three dollars, and the excellent scholarly work done in the volume under review together with its compact comprehensiveness, will make it a favorite with the ordinary Bible student. The Sunday School libraries of the country, the earnest and ambitious teacher and many of the pupils will wish to have at hand where it can readily be referred to, this valuable and helpful work. In fact such a volume is a positive necessity to every one who would be accurate and well informed on Bible topics. We believe that with the development of the graded lessons in the Sunday School, the time will come when it will be as unusual to find a Christian home without a Bible dictionary as without an English dictionary. This volume is a real dictionary of the Bible, not a compendium of theories and speculations. The ripe fruits of modern scholarship are to be found in it but controversial subjects are avoided. The illustrations, maps and general arrangement contribute to its useableness. It is a thoroughly practical and widely useful book.

PATRIOTISM. A Biographical Study. By H. G. F. Spurrell, New York. The Macmillan Co. Price, $1.00.

Our author writing from London attempts in this little book to "explain the natural history of patriotism." He does not believe this the product of education, but an instinct. His desire is not to quarrel over it but examine carefully this important factor in shaping the destiny of mankind. He sees life as one great struggle, and men, who are not degenerate, fighting for their dear ones and their nation. War is thus a necessity. We must kill off excess of population, or become sterile, or soon starve. If all nations dwelt at peace, degeneracy and famine would follow. "The strength of each nation's patriotism is the factor which determines its chances of survival." Mr. Spurrell is quite pessimistic in his views, but he has the courage of his convictions, and presents an array of facts which the most optimistic may and should consider carefully.

VOCAL EXPRESSION IN SPEECH. By Henry E. Gordon. Boston. Ginn & Co. Price, $1.00. In these 315 pages, Professor Gordon's aim is "to present an entirely new point of view in the study of oral expression." The text is separated into four divisions,—speech melody, speech quality, speech rhythm and speech dynamics. For each there is a thorough program of study and several hundred illustrative selections. He has had the editorial co-operation of Rollo L. Lyman of the University of Wisconsin. This book is the slow outgrowth of a veteran teacher of college boys with long experience as to their needs in elocution, in interpretation and in public speaking. Professor Gordon makes much of individual initiative and freedom, and avoids as far as possible details and subdivisions. The book shows much research and clear, careful thinking, and the selections are admirable. The student who carefully studies this book and is guided by it will profit greatly.

Periodical Notes

Several articles in the October *Century Magazine* will particularly interest our readers. "The Roman Art Exposition of 1911" is pleasingly set forth by Harrison S. Morris. "The Christian Endeavor Society" is the title of an article by the founder of the movement, Rev. Francis E. Clark, D. D. It describes the history, growth and influence of this leading young people's society. "Shakespeare on the State" is interestingly treated by William Winter in a fifth paper in the series. "College Debating" is the theme of a contribution by Rollo L. Lyman. Jane Austen, who had no especially organized education, was an omnivorous reader. Her favorite books were the *Spectator*, Richardson, Johnson, Crabbe, Cowper, Scott. She was, moreover, an excellent needlewoman, and was "especially great at satin-stitch." Did not the practice of satin-stitch help to point that other inimitable weapon which she used with such exquisite skill, touching the portraits of her friends and neighbors with the most delicate satire in the world?—Helen Hay Wilson, in an article on "The Education of Daughters," *Harper's* for October. *Everyland* is now one of the best of the illustrated magazines for children. It is a magazine with a definite purpose and its subscription list is rapidly growing. Dr. Edward A. Pace read a valuable paper at the recent annual meeting of the Catholic Educational Association. It is printed in the September number of *The Catholic Educational Review*. The readers of Education should not miss the interesting and effectively illustrated article in the October *Delineator* by Mrs. Annie Garlin Spencer entitled "The First Air School." It shows how to do the school work out of doors.